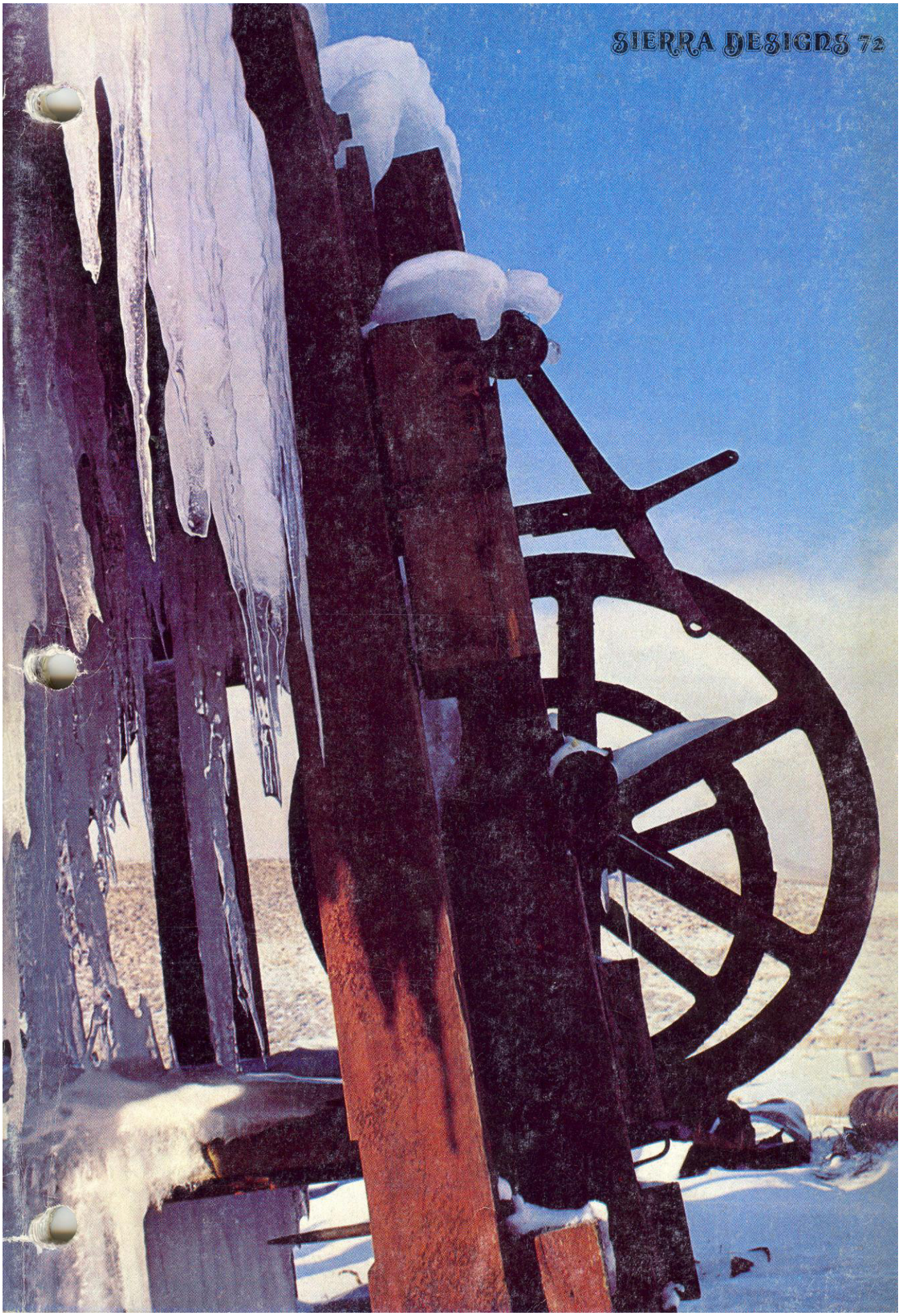

SIERRA DESIGNS 72

TO OUR CUSTOMERS

We hate to see the time go by; this is already our seventh catalog. Through the past years we have appreciated your patronage, enthusiasm for our products, suggestions and even your nasty letters when we put you through a bummer.

In 1966 (our first year of business) only about eight people worked at Sierra Designs; six of them are still here. Present still are the three partners and three ladies who ran the vintage sewing machines . . . the escapees are probably out having a good time somewhere.

Since then we've grown considerably and now have a lot of people milling about and bumping into each other. Lots of changes.

We have not, however, changed the ideas we started with. We strive to honestly make a useful product. We stand behind everything we make and work to make it better. We intend to be around for a number of times seven, and we intend to be the best.

We hope you all have yourselves a time this year . . . wherever.

DAVID BUSCHMAN GEORGE MARKS ROBERT SWANSON

DOWN FACTS

Down is one of the most efficient natural insulators known, that is applicable for clothing and sleeping bags. It is light, durable, and fills the greatest volume for the least weight, yet compresses into the smallest space for packing. Superior breathing characteristics of down permit maximum transfer of warm, moist air from the body, allowing the wearer to stay warm and dry. The fine qualities of down are attested to by the delight and satisfaction of people who have used it, and by the ever-increasing demand for down products.

In counterpoint to the above is the problem of assessing the quality and character of any given quantity of down. Unlike a manufactured product, where control over specifications and characteristics is fairly exact, down quality is subject to many variables.

In the marketing of down products manufacturers have tended to dazzle the customer with vague or glittering statements that are sometimes true, but difficult to verify. Some manufacturers would have you think that they have their own flock of wild birds out on the "back forty" all banded and branded with their trademark, which is just so much bunk. Descriptions such as "super", "handplucked", "grade AA", "premium", "virgin", "northern", etc., vary from the possibility of being true to outright meaninglessness.

DOWN AND THE LAW

In contrast to commercial descriptions of down, there are legal descriptions. Permissible language is exact and designated. We can say "goosedown", "duckdown", "waterfowl down" (a mixture), but that is about it. Color, which is immaterial, may be designated, but is not required. Under present California law, down is defined as: ". . . the undercoating of waterfowl, consisting of the light, fluffy filaments growing from one quill point but without any quill shaft." The composition of an article labeled as down is further defined in respect to percentages of down, feathers, residue, etc.

This is very fine and protective of the consumer to the extent that you know you are getting "down". However, it does not really tell you how good that particular down is, because it does not take into account the origin of the birds or the conditions under which they are bred. The whole matter comes down to the fact that you must rely on the manufacturer's integrity in regard to his statements and his willingness to back the quality of the product unconditionally.

HOW THEY GET ALL THAT DOWN

The picture of a wild goose or duck flying high over northern lakes and marshes is what we relate to the down filling in the sleeping bag or jacket we own. The reality is that those ducks and geese are domestic creatures, raised in huge flocks just as chickens or tur-

keys. They are not raised with your sleeping bag particularly in mind. They are raised and marketed as a food product, and that consumption dictates the conditions under which they are raised. Plumage represents less than 10% of the bird's value.

The origin of all this material is world-wide; it comes from Asia, America, Canada and Europe. We are concerned with the down from "northern" countries inasmuch as the down must keep the bird warm before it keeps you warm. Climate plays a part in producing optimum down, for a duck or goose living in Florida or Taiwan cannot produce, and does not need, the insulation of one living in Finland or Poland. There is also maturity of the bird, for an older bird produces a down cluster of greater size and resiliency than one which is small and immature. Until recent years, geese and ducks were raised to maturity; a market goose weighed 25 to 30 pounds. A trend started in the past decade when the demand for a smaller, leaner bird became dominant. Today, instead of a 25 pound bird, the market goose in Europe weighs about 10 to 12 pounds. The lowly duck, being rather small to start with, has not been reduced proportionally. As the poultry industry in the U.S. has changed radically in recent years, so too has the waterfowl industry abroad . . . it has moved in the direction of efficient breeding and "rapid turnover".

It is apparent from the above that such radical changes in the raising of birds is going to affect the type of plumage available. Consistently obtaining qualities that will compare with the down of only five years ago is a difficult task.

Cost has gone up. This is consistent with the economic growth and strength of the European market, which is the principal source of quality downs.

Sierra Designs uses only prime quality goose and duck downs. The best basis to test the relative efficiency of downs is by how much space a given weight will fill (our test methods are those devised by the Federal Bureau of Commerce) and how efficient it is in recovery of "fill-power" after being compressed. The standard for our fills is:

Goosedown: Cubic centimeter filling power of 550 - 600 per ounce.

Duckdown: Cubic centimeter filling power of 525 - 575 per ounce.

Relative to weight used, goosedown is about 10 - 12% more efficient, but about 22% greater in cost. We use either goose or duck fills, depending on end use requirements.

Mummy Bags: We use goose fill. These bags are designed for low-temperature use and have very costly and elaborate construction. We use the very best fill, even though the cost of the finished product is high.

Other Bags: We use duck fill in our Omnis, Double Mummy and Footsack. These bags are for more general use. Use of goose rather than duck fill would not greatly affect their performance, but the cost would be disproportionate.

Down Clothing: All of our down jackets are quilt-type construction, and we use duck fill. In a fully baffled sleeping bag, great effort is put into making an optimum construction for maximum lofting of the down. However, quilt-thru construction of jackets results in compression of the down and there is no measurable difference in the two fills as to performance, but there is a great cost difference. We choose to offer a quality item where cost and performance are balanced, without respect to the mystique that goose is essential and always better.

SLEEPING BAG CONSTRUCTION

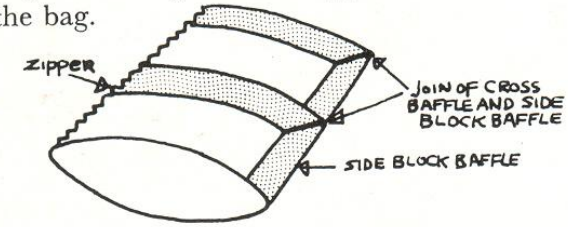
Fabrics: We use all-nylon fabrics in a ripstop weave. They are light, strong and durable. We use 1.5 and 1.9 oz. weights of fabric. We use the lighter, more costly weight of ripstop where weight savings are most critical. The heavier weight ripstop is a bit more tolerant of abuse and more economical.

Baffle: We have developed for use a knit, stretch-nylon netting. It has extreme elasticity, but retains shape with release of tension. It is definitely superior to fabric baffle and an improvement over the non-stretch net we formerly used. It is very light and finely-knit; it cannot ravel or pull out of the sew line. One misguided criticism of net baffle is that it allows shifting of down from one section to another. This is not true, for the downs are too large to freely pass and are constantly faced with the down on the other side. An equilibrium is maintained.

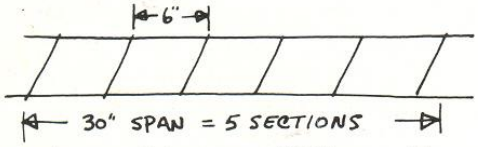
Zippers: We use Y.K.K. Delrin Nylon zippers in the large #10 chain size. Double sliders allow top and bottom operation, for maximum ventilation control. We happily **guarantee** these zippers against failure, for with over 40,000 sleeping bags in the field, the number of zipper failures can be counted on the fingers of any normal

four-handed person, being in the range of 1/25th of 1%.

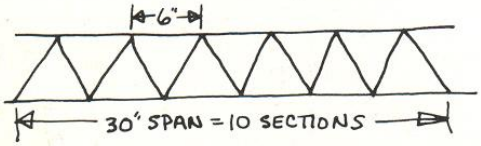
Baffle System: Baffles are the "glue" that holds together the intricate construction that makes up an expensive down sleeping bag. Baffle setting is a complex sewing task, for each down compartment must be separate from every other. We use a **complete** blocking system. *First* there are the cross baffles. These are the principal stitch lines visible across the bag. They form the main compartments and require good baffle material and uniform stitching. *Second* there is the side-block baffle. It provides an anchor for the cross baffles and in itself is the barrier that prevents down from shifting from the upper half of the bag to the lower. *Third* there is the joining of cross-baffle to the side-block baffle. This prevents down from "turning the corner" of adjacent compartments opposite zipper side of the bag.



Baffle Patterns: The techniques described above are used in two different patterns. The first is offset wall, which is used in all our bags except the #300 Expedition.

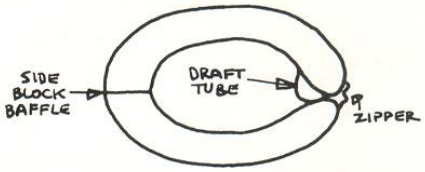


Baffle interval is set on 6″ lines with an offset of 3″. This partially overlaps one tube over another. It is an elastic, lightweight construction that allows maximum lofting of down. Avg. cross-section of tube is 24 square inches.

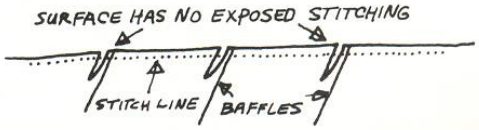


Used only in #300 Expedition model. Heavier than offset wall because baffle yardage is double. Loft requirements must be figured in advance, because the "accordion" effect of offset wall construction is not present. However, chambers are half the size and are interlocking wedges. Downshift is minimal and cold spots are virtually eliminated. Cross-section of tubes is approximately 12″. Offset wall construction would require 3″ baffle intervals to achieve the same end, with increased cost and more exposed stitching.

Differential Cut: This is the "thermos bottle" idea. Inner shell is cut smaller than outer, so that the thickness of insulation will remain constant. Down can be displaced by movement of elbows, hips, knees, etc. Smaller inner shell prevents you from pushing through insulating layer to outer shell and creating a thin spot. Any manufacturer who says that differential cut is not important is a crock, for light, down bags are not rigid constructions and a differential bag does keep the inner shell close to the body, while minimizing penetration of the down layer.



Stitching: All of our baffle stitching is unexposed. Our seams are sewn so that no thread is exposed on the inner or outer surface of the bag. This method requires more fabric and more sew time, but your bag will be stronger and give longer service, because the snagging and abrasion of stitch lines is eliminated.



FEATURES COMMON TO ALL OUR MUMMY BAGS

Fabric: Ripstop Nylon. Ultra-light 1.5 oz. wt. in Superlight and Expedition; 1.9 oz. wt. in Two-Hundred.

Zippers: Y.K.K. zippers of Dupont Delrin Nylon. Size is large #10 chain. All zippers are 70″ length with **two sliders** for top and bottom opening.

Mating: All mummy bags will mate, regardless of length or model. It is required, however, to have a right and a left bag. **Specify which side zipper you want when ordering a Mummy bag.**

Hoods: All mummy bags have hoods. Hood closure is effected with a drawcord and Velcro tape combination.

Stuff Sacks: Coated nylon stuffsack included with each bag.

Sizing: Mummy bags come in three (3) sizes: Regular: to 5′ 10″ Large: to 6′ 2″ X-Large: to 6′ 8″

DOWN SLEEPING

100 SUPERLIGHT

Superlight is designed and built to satisfy the backpacker/mountaineer who requires an extremely light, compact bag that will perform through all Alpine seasons. Nothing is spared in either construction or materials to achieve that end. (Please see CONSTRUCTION DETAILS on page 2.) The Superlight is cut for efficiency of heat conservation, compactness and lightness . . . if you are huge, overweight, or like to sleep in a staked-out attitude we do not recommend this bag.

COLORS: Jelly Apple Red or Middle Blue. Insides of Tarragon Tan.

REGULAR: $85.00 LARGE: $89.00 X-LARGE: $94.00

SPECIFICATIONS:
Filling: Prime Goosedown.
Fill Quantity: REG. 27 oz.
LGE. 29 oz. X-LGE. 31 oz.
Total Weight: REG. 3 lb. 1 oz.
LGE. 3 lb., 6 oz.
X-LGE., 3 lb., 11 oz.
Loft: 6"-7".
Stuffed Size: 7"x18".
Inside Girths:
Shoulders 56". Foot 36"
Est. Min. Temp. 5° to 10°.

200 TWO-HUNDRED

We formerly called this bag the "Perfect", but felt bad about using the term, since perfection is our ideal rather than our reality. Everybody calls this bag the "Two-Hundred" anyway, and we like that. This is our best selling sleeping bag and rightly so. It will keep you warm in the winter, comfortable in all seasons, is lightweight and strong, and has room to thrash around in. If you want a downfilled mummy bag that is comfortably warm and roomy, weighs about 4 pounds total with 2+ lbs. of goosedown fill and that has construction and materials superior to any other make . . . then just read the CONSTRUCTION DETAILS on Page 2, examine a bag and make up your own mind.

COLORS: Straight Orange, Royally Blue; insides Nutmeg.

REGULAR: $100.00 LGE: $105.00 X-LGE: $112.00

SPECIFICATIONS:

Filling: Prime Goosedown.
Fill Quantity: REG. 36 oz.
LGE. 39 oz. X-LGE. 43 oz.
Total Weight: REG. 3 lb., 10 oz.
LGE. 3 lb., 15 oz.
X-LGE. 4 lb., 4 oz.
Loft: 8"-9".
Stuffed Size: 9"x18".
Inside Girths:
Shoulders 63". Foot 42"
Est. Min. Temp. —5° to +5°

300 EXPEDITION

All of our mummy bags have been used on "expeditions" — both the small, personal kind, and the large-mountain, miserable-suffering kind. However, the Expedition bag is designed to make sleeping in low temperatures and horrible conditions reasonably comfortable and warm. This bag is of overlapping V-tube construction. set on 6" intervals, resulting in many small, triangular interlocking compartments. This construction gives you an interior compartment every 3" and the average bag has about 60 fill chambers. Down shift is minimal and the quantity and uniformity of down distribution produces a bag that keeps you warm in minus zero temperatures. (See CONSTRUCTION DETAILS on Page 2).

COLORS: Jelly Apple Red or Plain Purple. Insides of More Tarragon.

REGULAR: $122.00 LGE: $129.00 X-LGE: $138.00

SPECIFICATIONS:

Filling: Prime Goosedown.
Fill Quantity: REG. 46 oz.
LGE. 51 oz. X-LGE. 57 oz.
Total Weight: REG. 3 lb., 14 oz.
LGE. 4 lb., 4 oz. X-LGE. 4 lb. 10 oz.
Loft: 10".
Stuffed Size: 9"x21".
Inside Girths:
Shoulders 64". Foot 42"
Est. Min. Temp. —25°.

HARRISON

OMNI-LIGHT

Everything said about the Omni goes for the Omni-Light, too. The difference is that this bag comes closer to the backpacker's ideal. The bag is cut closer for better thermal efficiency and weight saving, and the fabric is 1.5-oz. ripstop for more weight saving. Zipper is 100″ with double sliders.

COLORS: Just Blue.

REGULAR (to 6′):	$78.50
LARGE (over 6′):	$82.50

SPECIFICATIONS:
Filling: Prime Duckdown.
Fill Quantity: REGULAR 36 oz. LARGE: 42 oz.
Total Weight: REGULAR 4 lb. LARGE 4½ lb.
Loft: 6″+.
Stuffed Size: 7″x18″.
Size Opened Flat: REGULAR 65″x75″. LARGE 65″x84″
Est. Min. Temp.: 15°.

OMNI

Hardcores who consistently backpack, snowcamp, ski-tour and mountaineer in general are best off with a mummy bag, but if you do some of the above as well as river-touring, desert camping, have a ski cabin or frequent overnight guests . . . you then might consider the versatility of the Omni. It has more room, can be used as a quilt, pairs zippered together make a giant double and in general is very handy and much used. It gives up some weight advantage and thermal efficiency to mummy bags, but you can't have everything. 1.9-oz. Ripstop nylon. Zipper is 100″ with double sliders.

COLORS: Only Blue.

REGULAR (to 6′):	$85.00
LARGE (over 6′):	$90.00

SPECIFICATIONS:
Filling: Prime Duckdown.
Fill Quantity: REGULAR 31 oz. LARGE 35 oz.
Total Weight: REGULAR 3 lb. 8 oz. LARGE 3 lb. 14 oz.
Loft: 6″+.
Stuffed Size: 9″x18″.
Size Opened Flat: REGULAR 60″x75″. LARGE 60″x84″
Est. Min. Temp.: 15° - 20°.

OMNI/OMNI-LIGHT HOOD

Down--filled and covers shoulders as well as head. No attachments, just wear it. A must for most in winter. Weight: 8 oz. $10.00

DOUBLE MUMMY

If your trips usually include a partner, then you should consider this bag. Lighter, cheaper and more efficient than pairing single bags. It is the proper design for two persons and has room for moving about and stretching out. A 70″ zipper each side opens top and bottom for individual temperature control, and there are individual hood closures. Should you be inclined, you can zip any of our single mummys to either or both sides of the double, or an endless number of doubles for that matter. This bag works.

COLOR: Usually Blue.

One size up to about 6′2″: $140.00

SPECIFICATIONS:
Filling: Prime Duckdown.
Fill Quantity: 3 lb. 9 oz.
Total Weight: 6 lb. 13 oz.
Loft: 6″+.
Stuffed Size: 11″x21″.
Girth: Shoulders 102″ Hips 98″. Foot 66″
Est. Min. Temp.: Up for grabs, but if you can't get to zero°, you should stay at the lodge.

FOOTSACK

A ¾ length bag generally used by crazies who sleep out on ledges, snowbanks or other bad places. If you happen to be a kid or are very small (4′ 6″ max.) it makes a dandy, lightweight sleeping bag. No zipper.

COLORS: Orange or Blue.

$42.50

SPECIFICATIONS:
Filling: Prime Duckdown.
Fill Quantity: 16 oz.
Total Weight: 1 lb. 12 oz.
Loft: 6″ +
Stuffed Size: 7″x12″.
Girth: Top 52″. Foot 36″
Est. Min. Temp.: As kid's bag: 10°.
As footsack—no claims.

BAG COVERS

Added warmth and protection for your Sierra Designs bag. Ripstop top with coated nylon bottom. Specify bag model, size and which side zipper is on.

COLOR: Blue.

(Single Bag) $20.00

Weight: 12 oz.

SLEEPING PAD

Superior comfort and i
tion. Convoluted foam
maximum average thicknes
least weight. Cover is cott
top and waterproof nylo
bottom. Envelope style, s
can be removed. Colors va

21″x42″x1½″ Wgt. 1¼ lb.
21″x54″x2″ Wgt. 1¾ lb.
21″x72″x2″ Wgt. 2¼ lb.

POLYLITE PAD

Good insulation with a
cum of comfort. ⅜″ thick
x 48″. Wgt.: 6 oz.

STUFF SACKS

Made of 3½ oz. wate
nylon. One piece constr
with square bottom.

#001	3½x8	$1.25	#200	10x18
#002	6x11	$1.50	#300	10x21
#003	7x13½	$1.75	#500	11x21
#100	7x18	$2.00		

CLOTHING

All our clothing has been developed from our own designs and patterns. We make constant revisions to gain better performance, durability and appearance. Our down, insulating clothing and our overshell garments work extremely well together or separately. Multi-layer clothing (rather than one thick or heavy garment) allows combinations to be made quickly for the greatest protection and comfort in extremes of weather.

SIERRA JACKET

Our most popular jacket for alpine camping, ski-touring, or for cool windy days at the beach or around town. A hip-length jacket, with 2″ high down-filled collar, drawcord bottom and adjustable cuffs. Front closure is nylon zipper, with a covering flap that snaps over zipper. Jacket has two outside pockets that are insulated and have velcro closure. There is an inner pocket for goggles, etc. Fabric is 2½ oz. supernyl filled with Prime Duckdown. Stuffsack included.

COLORS: Darkish Blue, Green, Cranberry. $37.50

Wgt.: Medium, 22 oz. Fill: Medium, 8⅝ oz.

SIZES: X-sm. (32-36) Sm. (36-38) Med. (38-40) Lge. (40-42) X-lg. (44-46).

WHITNEY PARKA

This parka has identical features of the Sierra Jacket, except it is cut 4″ - 5″ longer and has a waist drawcord rather than bottom drawcord. Outside pockets are different, being double — a velcro closed gear pocket it attached, so there is a handwarmer pocket behind. Stuffsack included.

COLORS: Darkish Blue, Green, Cranberry. $43.50

Wgt.: Medium, 25 oz. Fill: Medium, 9⅜ oz.

SIZES: X-sm. (32-36) Sm. (36-38) Med. (38-40) Lge. (40-42) X-lg. (44-46).

INYO PARKA (far right)

A heavier parka of three-layer construction that will stand up to use in brush or for general outdoor wear. Two inner layers are of lightweight nylon filled and quilted in duckdown. The third, outer layer, is of 5 oz. 60/40 cloth. This fabric is a blend of nylon and cotton and extremely durable. All other parka features are identical with the Whitney Parka. Stuffsack included.

COLORS: Darkish Blue, Green, Orange. $60.00

Wgt.: Medium, 37 oz. Fill: Medium, 9⅜ oz.

SIZES: X-sm. (32-36) Sm. (36-38) Med. (38-40) Lge. (40-42) X-lg. (44-46).

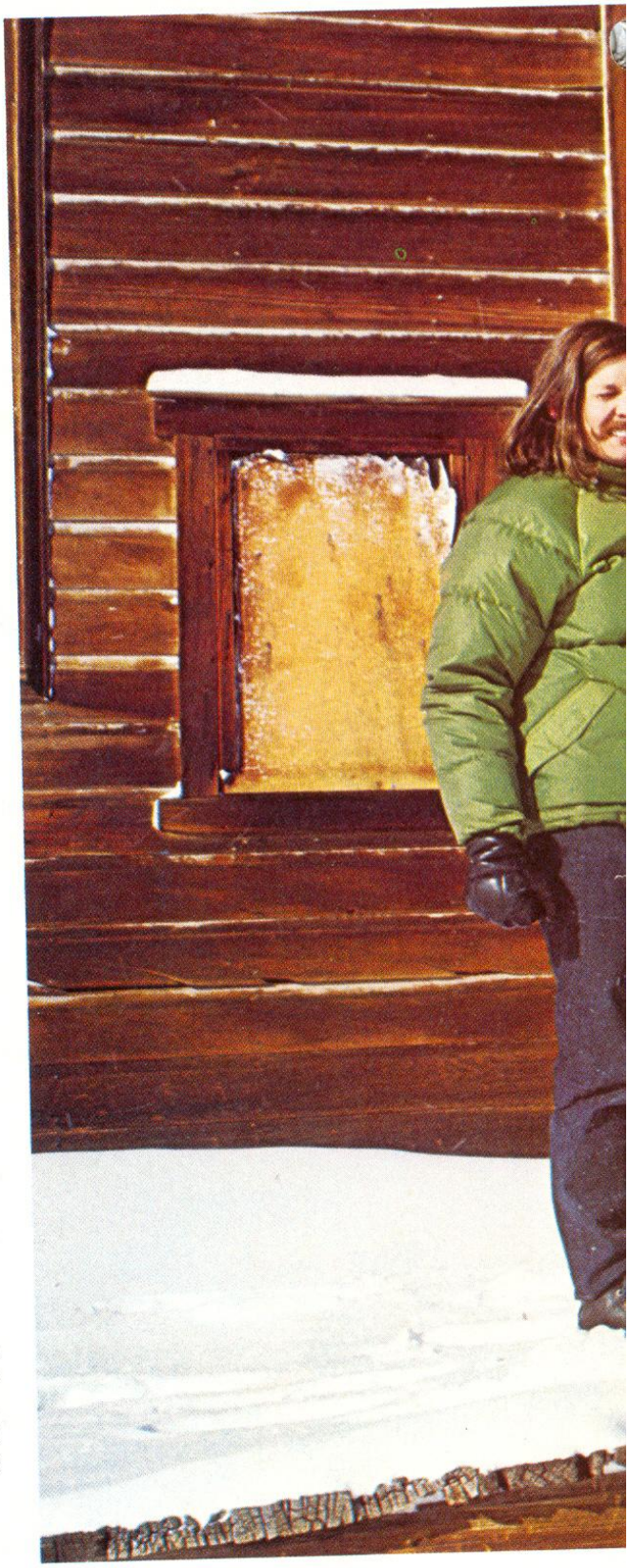
JACKET HOODS

Down-filled hoods that snap to collar of these jackets. SPECIFY JACKET MODEL, SIZE AND COLOR IF NOT ORDERED WITH JACKET.

Sierra or Whitney Hood: $7.00

Inyo Hood: $8.00

Wgt.: Lge., 3 oz. Fill: Lge., 1¼ oz.



DOWN SWEATER

An inexpensive, lightweight down jacket that is ideal for the climber and backpacker. Has zippered front, elastic cuffs and insulated pockets. Fabric is 2½ oz. supernyl. Comes with stuffsack.

COLORS: Purple or Chestnut. $30.00

Wgt.: Medium, 17 oz. Fill: Medium 6⅝ oz.

SIZES: X-sm. (32-36) Sm. (36-38) Med. (38-40) Lge. (40-42) X-lg. (44-46)

DOWN VEST

Used alone or combined with sweaters or over parkas, the vest provides great warmth with very little weight. Vest has a zippered closing, handwarmer pockets and is cut 3" longer in back. Fabric is 2½ oz. supernyl, quilted in duckdown. Comes with stuffsack.

COLORS: Purple or Hot Chestnut Brown. $21.50

Wgt.: Medium, 10 oz. Fill: Medium, 3⅞ oz.

SIZES: X-sm. (32-36) Sm. (36-38) Med. (38-40) Lge. (40-42) X-lg. (44-46)

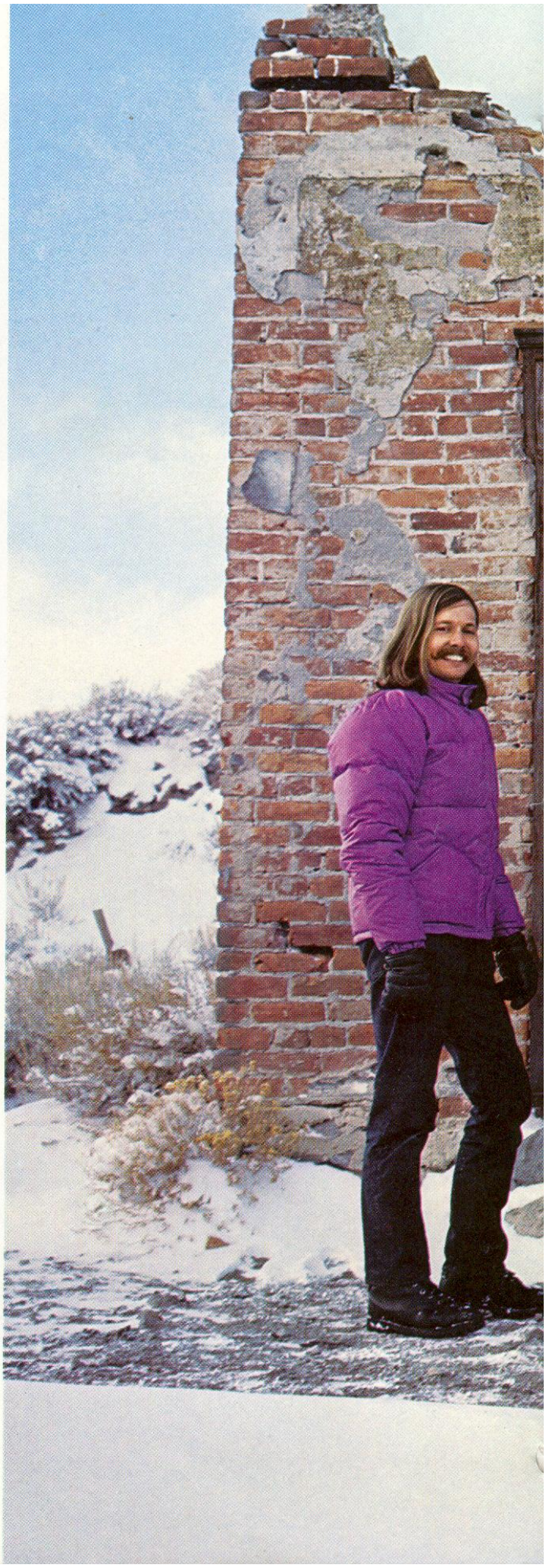
60/40 PARKA

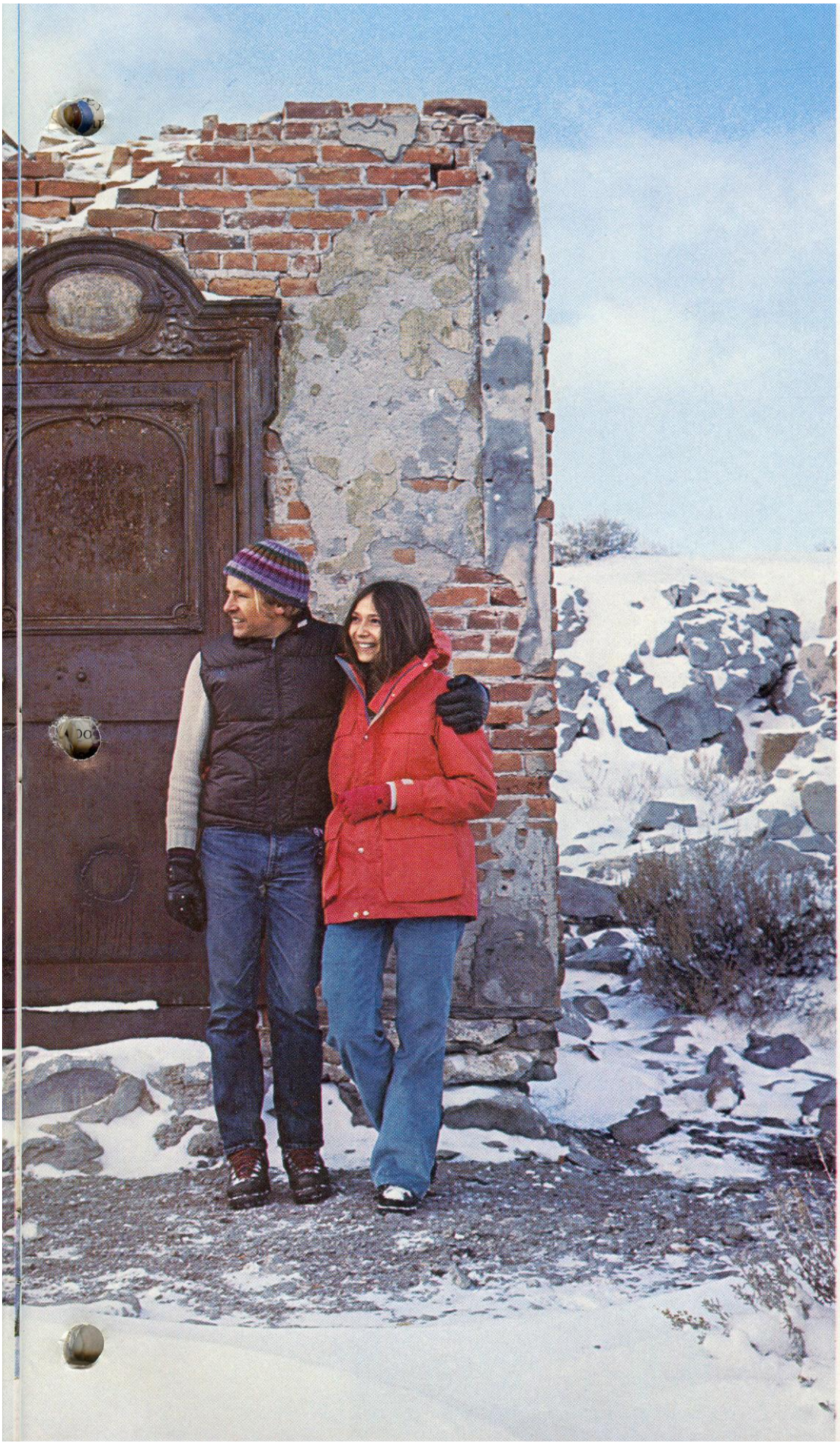
Since we started making our 60/40 parka three or four years ago, just about everybody else has come out with one. Not only have they complimented us by lifting some of the features, but they even "ripped off" the name we made up for the cloth—60/40—a blend of 58% nylon and 42% cotton. But that's okay, for it's better than being ignored. Parka has four, large velcro-closed pockets on front and a full back pocket with zipper closing. Cuffs are gusseted and close with velcro . . . they can be operated with gloves and snugly adjusted over gloves or left wide open for ventilation. Hood draw sliders are on inner facing and will not beat you to death in the wind. Front closure is snap/flap set over a #10 Y.K.K. nylon zipper. Parka is fully lined through sleeves and body with nylon. Hood is double layer of 60/40.

COLORS: Darkish Blue, Green, Orange. $38.50

Wgt.: Medium, 25 oz.

SIZES: Parka is cut large: X-sm. (34-38) Sm. (38-40) Med. (40-42) Lge. (42-44) X-lge. (44-48).





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COLORS: Purple or Chestnut. $30.00

Wgt.: Medium, 17 oz. Fill: Medium 6⅝ oz.

SIZES: X-sm. (32-36) Sm. (36-38) Med. (38-40) Lge. (40-42) X-lg. (44-46)

DOWN VEST

Used alone or combined with sweaters or over parkas, the vest provides great warmth with very little weight. Vest has a zippered closing, handwarmer pockets and is cut 3" longer in back. Fabric is 2½ oz. supernyl, quilted in duckdown. Comes with stuffsack.

COLORS: Purple or Hot Chestnut Brown. $21.50

Wgt.: Medium, 10 oz. Fill: Medium, 3⅞ oz.

SIZES: X-sm. (32-36) Sm. (36-38) Med. (38-40) Lge. (40-42) X-lg. (44-46)

60/40 PARKA

Since we started making our 60/40 parka three or four years ago, just about everybody else has come out with one. Not only have they complimented us by lifting some of the features, but they even "ripped off" the name we made up for the cloth—60/40—a blend of 58% nylon and 42% cotton. But that's okay, for it's better than being ignored. Parka has four, large velcro-closed pockets on front and a full back pocket with zipper closing. Cuffs are gusseted and close with velcro . . . they can be operated with gloves and snugly adjusted over gloves or left wide open for ventilation. Hood draw sliders are on inner facing and will not beat you to death in the wind. Front closure is snap/flap set over a #10 Y.K.K. nylon zipper. Parka is fully lined through sleeves and body with nylon. Hood is double layer of 60/40.

COLORS: Darkish Blue, Green, Orange. $38.50

Wgt.: Medium, 25 oz.

SIZES: Parka is cut large: X-sm. (34-38) Sm. (38-40) Med. (40-42) Lge. (42-44) X-lge. (44-48).

CLIMBERS CAGOULE (center figure below)

In case you are not a climber and don't know what this is . . . it is rather like a poncho/parka. Cut very large to fit over down jackets and made of coated nylon for wind and waterproofness. Parka is double layer construction from waist on up. Short on style, but long on protection. Wgt. 17 oz. Two sizes: Medium (for med. or smaller persons) or X-lg. (for everybody else). COLORS: Orange or Blue. $27.00

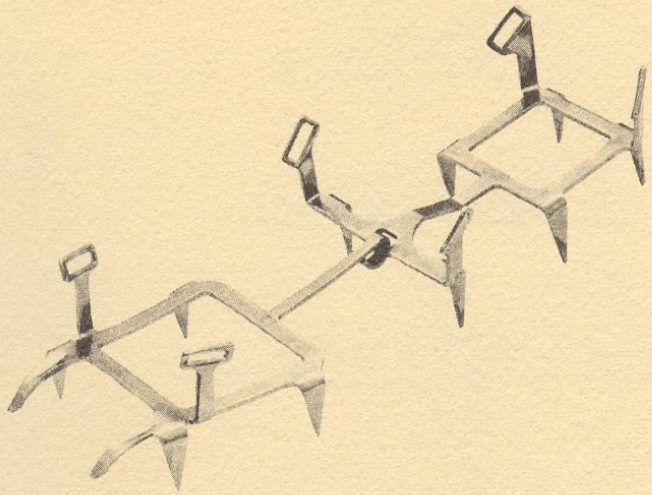
PONCHOS

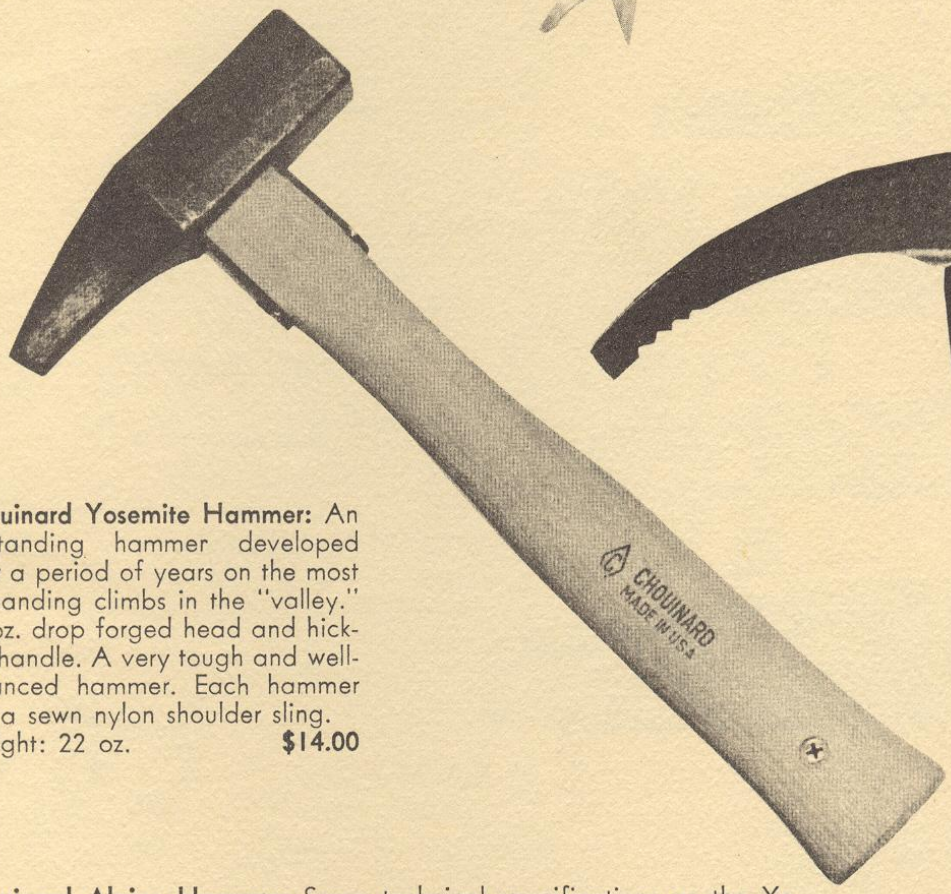
Made of coated Nylport
are sealed. All kinds of sn
grommets on edges. Pa
model has 18" extension c
COLORS: Blue or Green
(far left) Standard: 18
84"x70"
(far right) Packboard: 18
100"x70"

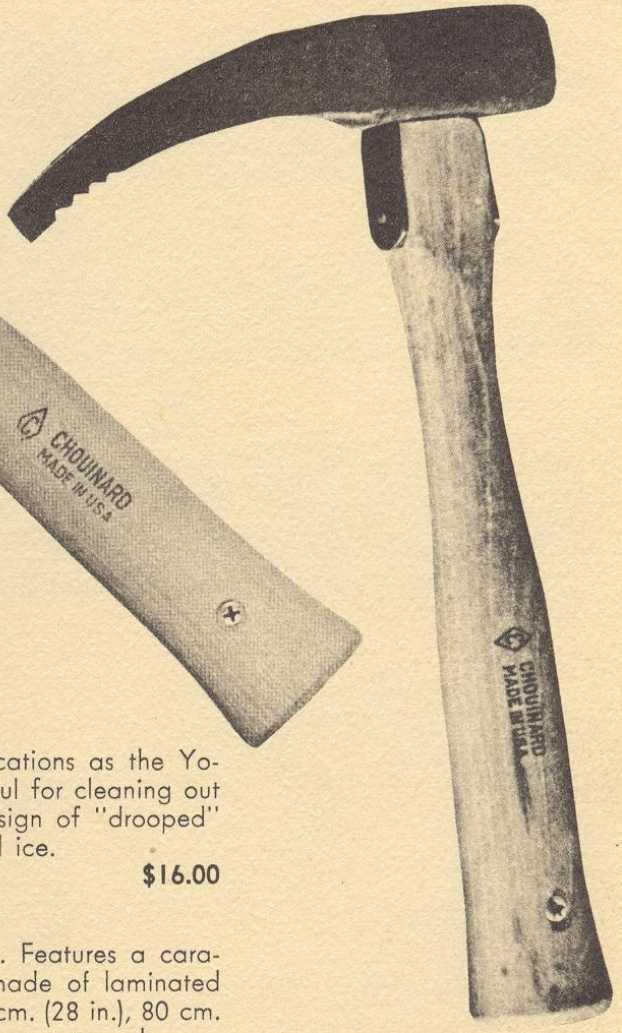
Crampons-S.M.C.: 12 point horizontal type chrome molly crampons designed for very steep ice slopes as well as routine travel on moderate slopes. Strap slots are integral with the crampon, thus eliminating rings that flop to the inside. Send boot outline when ordering.
Ave. Wgt.: 18 oz. **$21.50**

Neoprene Crampon Straps.
Weight: 7 oz. **$5.50**

Rubber Point Protectors.
Weight: 2 oz. **$2.00**



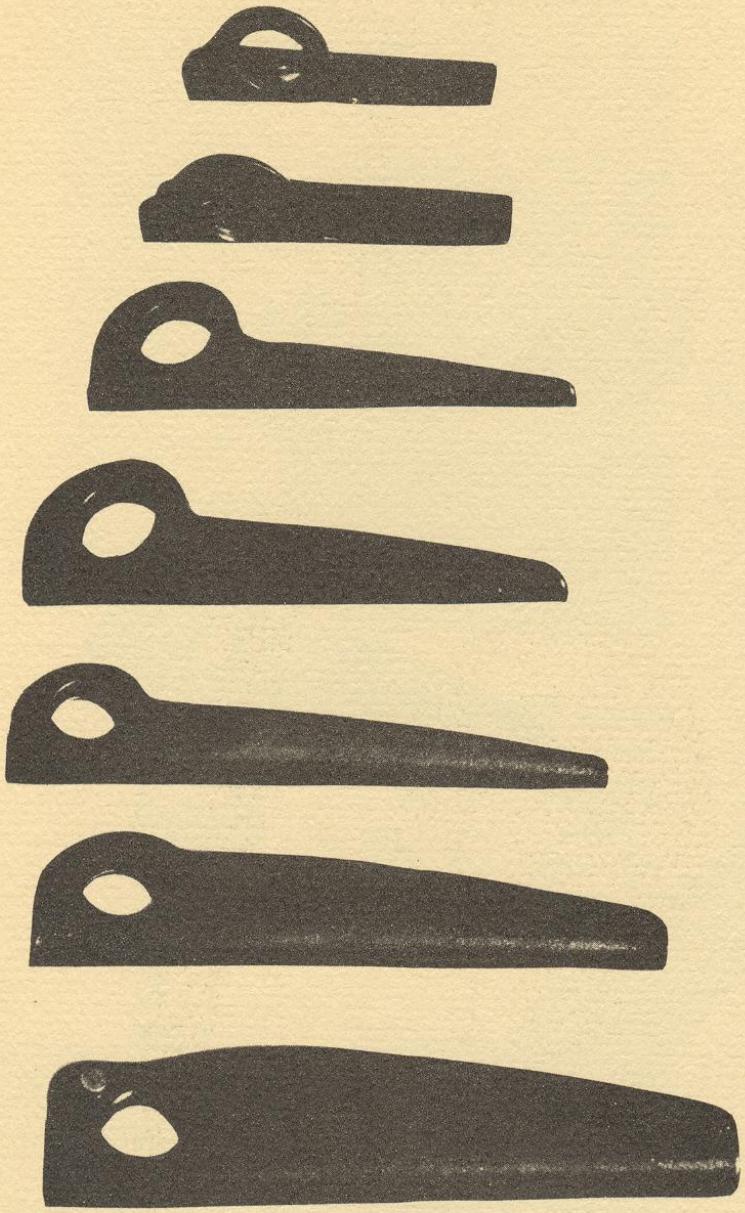




Chouinard Yosemite Hammer: An outstanding hammer developed over a period of years on the most demanding climbs in the "valley." 18 oz. drop forged head and hickory handle. A very tough and well-balanced hammer. Each hammer has a sewn nylon shoulder sling.
Weight: 22 oz. **$14.00**

Chouinard Alpine Hammer: Same technical specifications as the Yosemite hammer. The long pick on this hammer is useful for cleaning out cracks, placing and removing ice pitons. Special design of "drooped" pick enables it to be used as an ice dagger on hard ice.
Weight: 1¾ lbs. **$16.00**

Chouinard Piolet: Straight adz of forged nickle-steel. Features a carabiner hole and notches near pick end. Handle is made of laminated bamboo. Three lengths available; 55 cm. (22 in.), 70 cm. (28 in.), 80 cm. (32 in.). Short lengths are for use on steep slopes where not much snow is expected. Handle lengths on these axes allow their use in "close quarters".
Average weight: 2 lbs. **$33.50**



Chouinard Alloy Pitons:

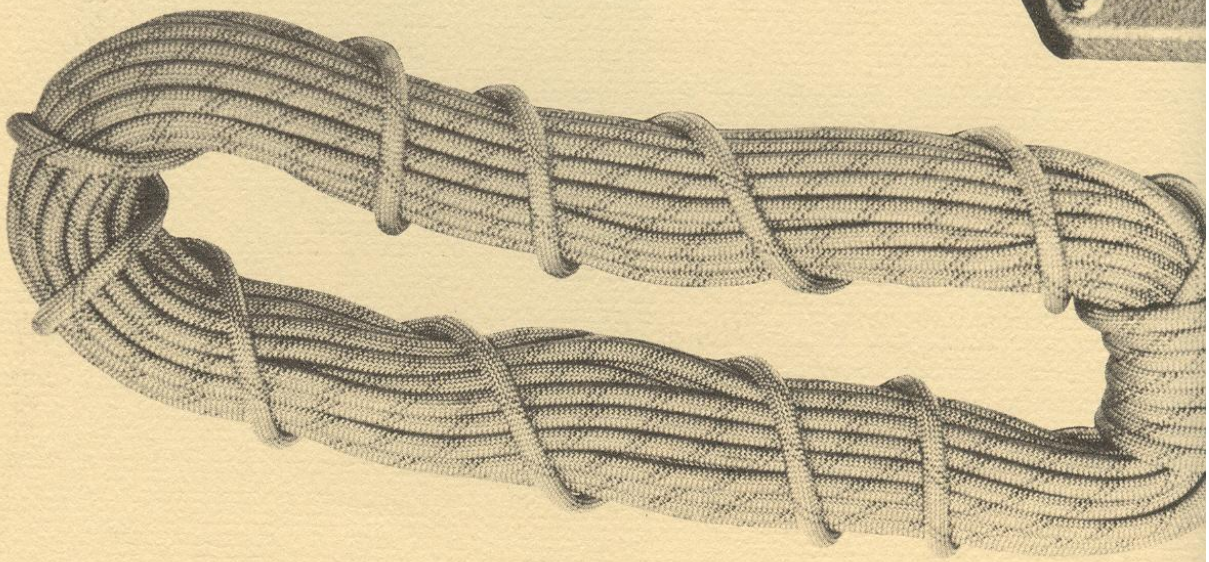
1. Knifeblade, standard .....$
2. Knifeblade, thick .....$
3. 1/2" Wedge angle .....$
4. 5/8" Wedge angle .....$
5. 3/4" Standard angle .....$
6. 1" Angle .....$
7. 1 1/4" Angle .....$
   (Not shown)
8. Bugaboo, short med. .....$
9. Bugaboo, long med. .....$
10. Bugaboo, short thick .....$
11. Bugaboo, long thick .....$

Retail Store stock features a wide variety of pi nuts and climbers' needs.

Jumar Ascenders: A lightweight alumi device that enables one to climb a r faster and more easily than the use prussik knots. Will work on ropes from 3/ thru 1/2 in. in diameter. Swiss made.
Weight: 20-oz. per pair **$34.00**

Perlon Climbing Rope: Edelrid brand lon rope is one of the leading ropes m in the world today. Exceeds U.I.A.A. sta ards. Kernmantle construction with "ke of continuous filaments. Characteristics perlon ropes are fine handling and supe strength. 11 mm for high angle rockcli ing and 9 mm for double rope techni or more modest mountaineering.

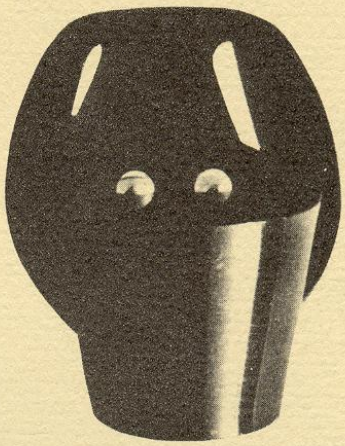
150' 11 mm—7 1/4 lbs.	**$44**
165' 11 mm—8 lbs.	**$50**
150' 9 mm—5 1/4 lbs.	**$33**
165' 9 mm—5 3/4 lbs.	**$35**



Metal Ice Axe: All metal Interalp ice axe, Everest model. Axe head made of chrome-moly steel. Curved adz makes removal from glare ice easier. Axe features a carabiner hole, replacable hardened steel point screwed into the end of the aluminum shaft. Good balance and a fine feel make this one of the best mountaineering axes available. 85 cm, 90 cm, 95 cm lengths available.
Average weight: 2 pounds. **$30.00**

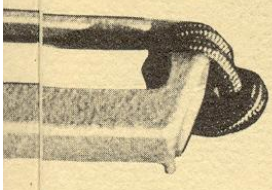
Dolt® Hammer Holster: Model "W"—The most popular of Dolt's astonishing holsters. Will take the Chouinard hammer as well as others.
Weight: 2 oz. Made of nylon. **$3.50**

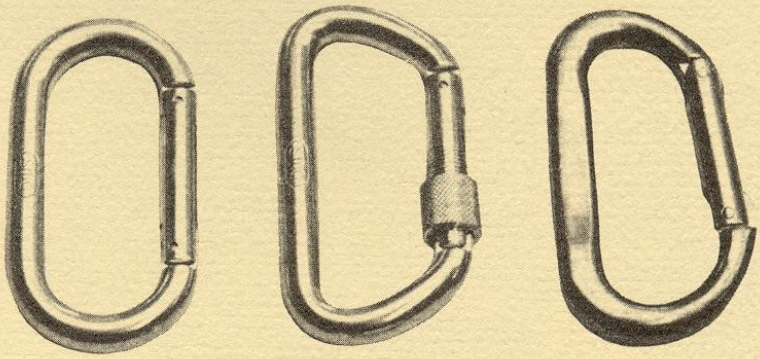
Oval Carabiner S.M.C.: The basic alloy biner, 2 oz.
Test 3000 lbs.+ **$2.25**
Orange anodized same as above **$2.50**
Brake Bar for oval biners **.75**

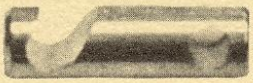


Chouinard Carabiner: Cast/forged with strength 5000 to 6000 lbs. gate closed. Gate can be opened under body weight.
Weight: 2 oz.+ **$3.50**

Locking Carabiner S.M.C.: Aluminum alloy.
Weight: 2 oz.+
Test 3300 lbs.+ **$3.50**







Alaskan Shirt: A straightforward wool shirt of a weight 20 oz. 100% virgin wool. Long tails, two b down breast pockets. Sizes: 14 to 18. Color: Sa Pepper Gray. Weight: 1¾ lbs.

Stag Shirt: An excellent jacket type shirt of 20 oz., wool. Straightcut bottom, double thickness over sho two breast pockets, two lower hand-warmer p Even Sizes, 14 to 18. Colors: Muted Red and Green. Weight: 2 lbs.

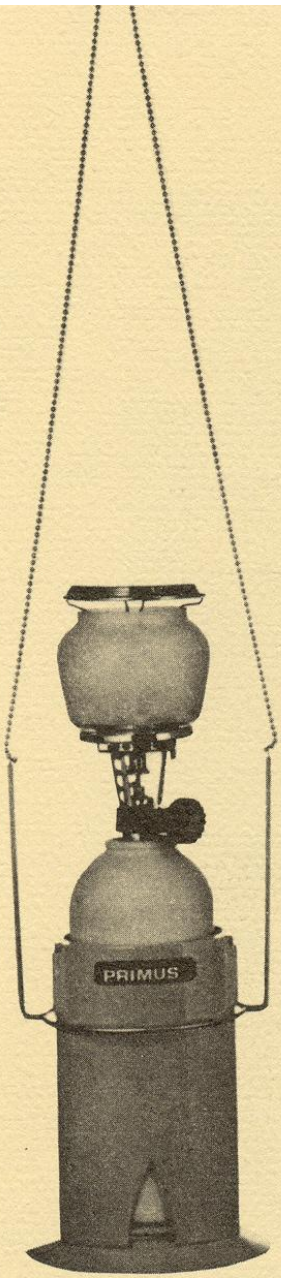
Annapurna: These have to be about th mountaineering glasses made. Hardcoate thetic lenses are scratchproof and op perfect. Leather nose piece and side wir comfortable and properly vented. A mos fortable and nicely designed and exe- cuted glacier goggle. French made. Weight: 3 oz. w/hard case. **$11.00**

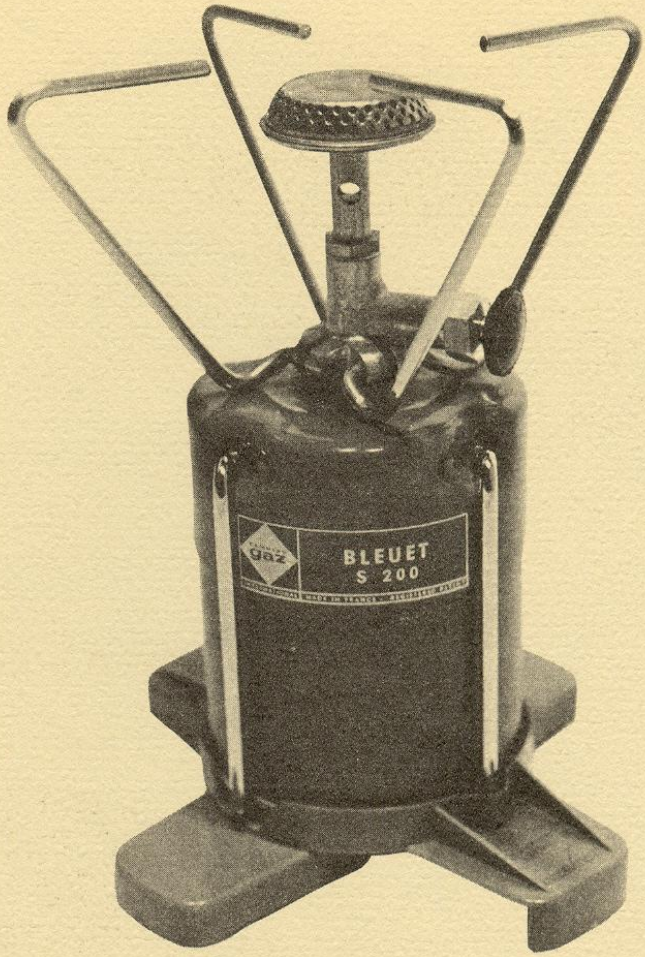
Down Mitts: Long gauntlet covers gap at wrist. Leather palm and nose wiper backing. An ideal mitt for really inclement weather. Sizes: Regular and Large. Weight: Approx. 14 oz. **$24.50**

Balaclava: From Scotland. Made of soft Shetland wool. Works as hat or full head cover. Colors: Orange, Gray, Fawn. Weight: 4 oz. **$2.75**

Sportif: By the same French manufacturer as the Annapurna goggle. An excellent pair of glasses for all sporting use. Curved, hardcoated synthetic lenses are optically true and will not shatter and are virtually scratchproof. Frames and bows are beautifully made and very comfortable. Weight 2 oz. in soft protective case. **$11.00**

Storm Sweater: A good looking, rugged outdoorsmen's all wool sweater. The high crew-neck collar keeps out drafts without the constriction associated with a turtleneck collar. Raglan sleeve. Made in England. Order one size larger than usual. Small, Med., Large, X-Large. Colors: Bone or Navy. Av. wgt.: 1 lb. 10 oz. **$22.00**

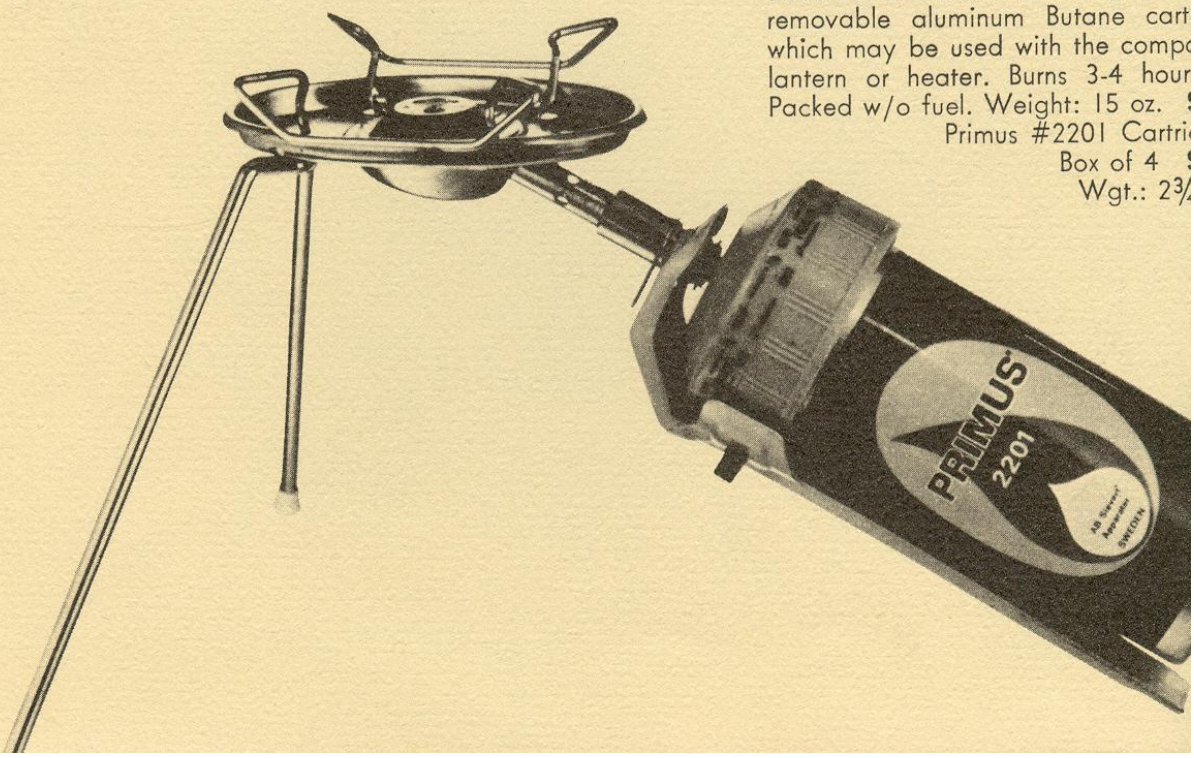




Bleuet Stove: Certain
of the most reliable ar
venient stoves avai
Uses pressurized ca
that are quickly chang
leakage, priming or pu
Cartridge burns for
3½ hours. Weight: 1
with fuel (includes on
ridge)
Cartridges/Box of 6.
4 lbs.
Wind Screen. Wgt.:

Primus Minilantern: Lightweight Butane camp lantern. Emits about 75 w. Uses removable aluminum cartridge. Burns 7-8 hours.
Note: Packed w/o fuel. Weight: 12 oz. **$9.95**

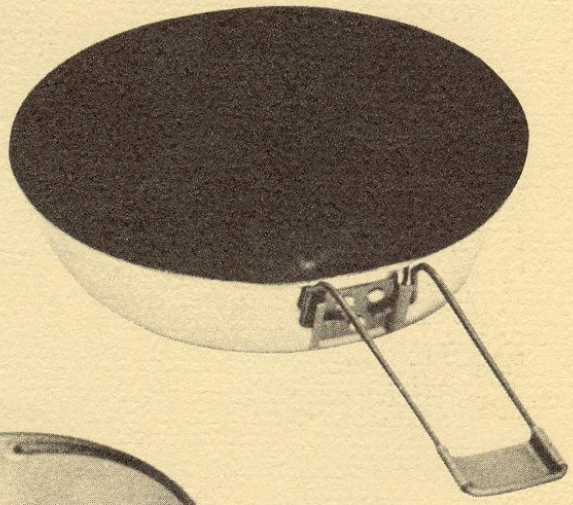
Primus Butane: Very popular, well-k
stove for outdoor enthusiasts. Utiliz
removable aluminum Butane cart
which may be used with the compo
lantern or heater. Burns 3-4 hour
Packed w/o fuel. Weight: 15 oz.
Primus #2201 Cartri
Box of 4
Wgt.: 2¾

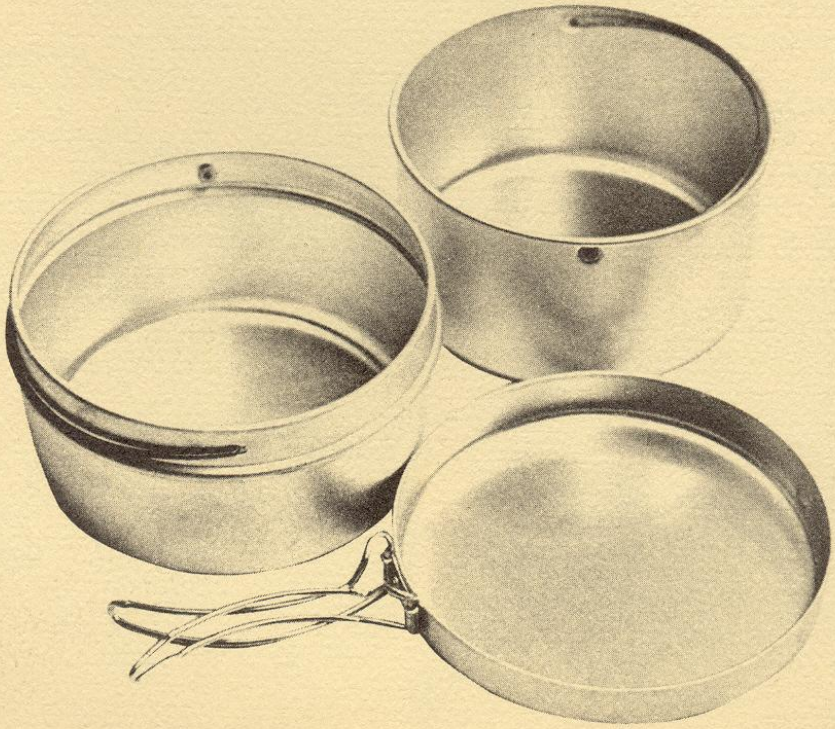


Teflon Frypan: Teflon coated aluminum frypan with a locking fold-away handle. Teflon coating makes cleaning messy pans an easy chore. 10"x2¼". Weight: 16 oz. **4.50**

Nesting Billies: Three aluminum billies with lids and wire bail handles. 5" billie holds 1 qt.; 6" holds 1½ qt.; 7" holds 2½ qts. Billies will "nest" one inside another to make a compact unit. Lids included. Weight: 27 oz. **$8.00**

Mountain Cooket: A three-piece all aluminum cook set. Two 7½" pots hold 2 qts. each and have wire bail handles. Broad base on pots gives a large heating area. Lid of set is used as a frypan. Can be used on stove or on open fires. Weight: 20 oz. **$6.00**





ORDERING INFORMATION

To Place a Mail Order: Fill out the order form—envelope provided, enclosing your check or money order.

Charge Card Orders: Master Charge or BankAmericard only. Please fill in all numbers, expiration date, and your name exactly as they appear on your card.

Telephone: You may make a charge card order by phone. Be sure to have your charge card with you and know the details of your order (size, color, etc.).

Collect Calls: We are sorry, but our order desk **cannot** accept collect calls.

C.O.D.: Costly and inconvenient to process. We will accept them, but we add a service charge of $2.50 to your order in addition to the Postal C.O.D. charges. Minimum value of order for C.O.D. must be $15.00.

Repairs: We repair only Sierra Designs products. They should be clean. If it is necessary for us to have items cleaned, we will do so and add the charge to the repair bill. Allow three weeks for repairs or four weeks if cleaning is required. We will advise you as quickly as possible as to total charges and repaired item will be shipped upon receipt of your check or money order.

Alterations: We welcome your design suggestions, but we cannot perform modifications on current or past products.

Out of Stock Items: You will promptly receive a notice including an estimate of waiting time. Items will be backordered for a maximum of 60 days unless cancellation specifically stated. Charge card and C.O.D. orders will receive a cancellation notice and advice on best time to re-order.

Insurance: All packages are insured for full value by Sierra Designs.

Gift Certificate: Just write words "Gift Certificate" in the **Item** column on order blank. Write your name and address in **Sold To** space and the recipient's name and address in the **Ship To** space. We will issue a gift certificate and provide a copy to you.

Correspondence: Address all mail order inquiries to . . .

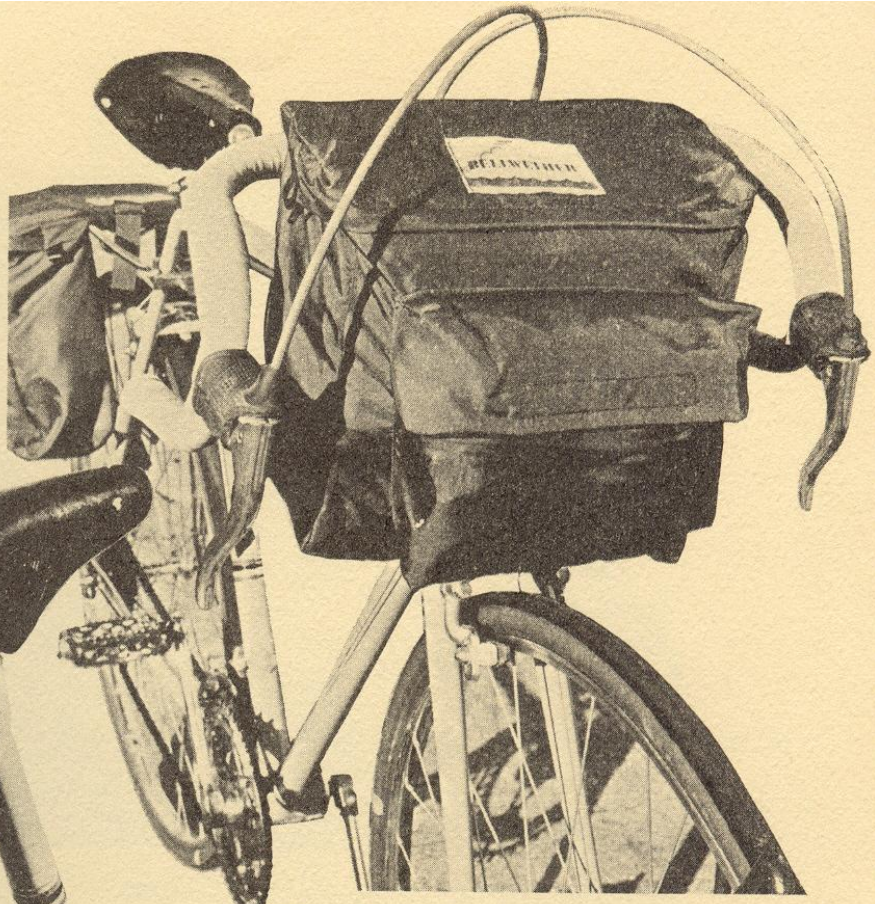
SIERRA DESIGNS
Mail Order Dept.
4th & Addison Sts.
Berkeley, Ca 94710

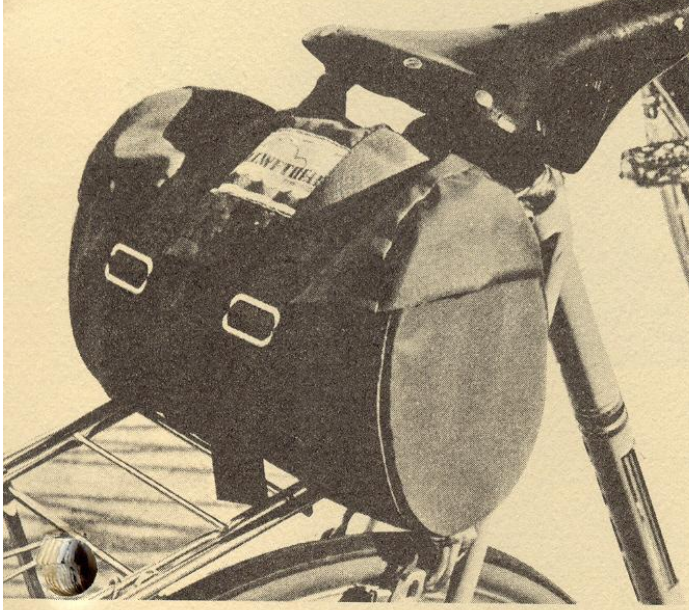
Mail Order Desk Phone Number is . . .
(415) 849-1942
HOURS: 9:00 a.m. to 5:30 p.m.
Monday through Friday

Retail Store Hours: 10:00 a.m. to 5:30 p.m., Monday through Saturday, Thursday till 9:00 p.m.

BELLWETHER BICYCLE PACKS:
All packs are constructed of coated nylon and designed to fit today's lightweight bicycles.

Handlebar Pack: A large zippered pouch with an outside pocket that will attach firmly to the handlebars. Main sack size is 10 in. wide, 8 in. deep, 5 in. thick. It has a stiffener to help maintain its shape. Colors: Red or Blue. Weight: 11 oz. **$12.50**



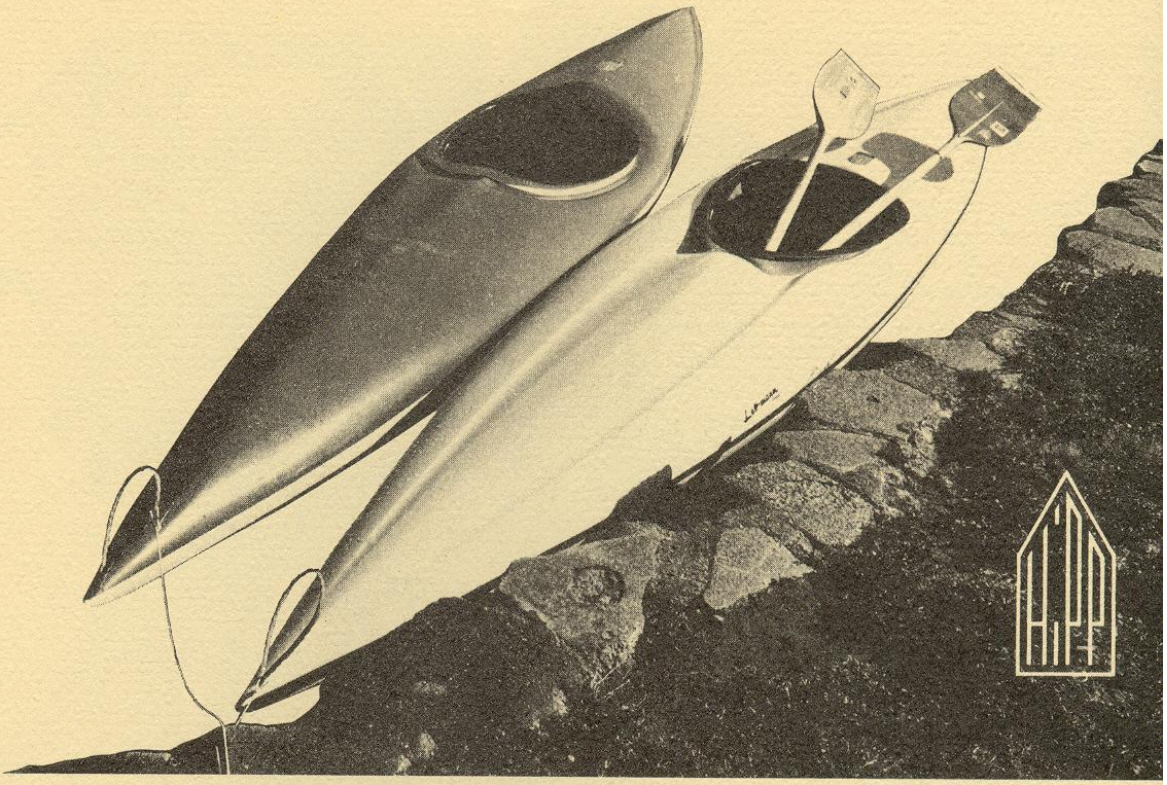


Seat Pack: Attaches below seat, closure is accomplished by two nylon straps. Oval shaped hard ends maintain its cylindrical shape. Ideal for tools and misc. small spare parts. 6 in. diam., 9 in. long. Colors: Red or Blue. Weight: 6 oz. **$6.00**

Rear Wheel Packs:

Large: Two large pouches closed by contour zippers. The entire top section forms a pouch 3 in. deep. Ideal for lightweight camp gear or moderate loads. Main sack size: 15 in. long, 14 in. at top tapering to 10 in. at bottom, 4 in. thick. Tapered shape allows pedaling without hitting sack with the back of the heel. Colors: Red or Blue. Weight: 1 lb. 4 oz. **$30.00**

Regular: Two roomy zippered pouches that hang on either side of rear rack. Each side has an additional outside zippered pocket. Main sack size: 9 in. high, 12 in. wide, 4 in deep. Colors Red or Blue. Weight: 1 lb. 9 oz. **$20.00**



TOURING AND RACING BOATS BY HIPP

Sierra Designs stocks a full line of whitewater boats and accessories. Whether you are interested in competition, touring and camping or surfing we have the proper boat for you.

These boats are manufactured by High Performance Products of Hingham, Mass. We consider them the pre-eminent builders of this type of craft — using the latest European designs for which they have exclusive U.S. rights. High Performance supplied the U.S. Team with 53 boats for the 1971 World Championships and is presently negotiating with the Olympic Committee to supply race boats to the U.S. Team for the 1972 Olympics in Germany.

If you would like a brochure, please write:

SIERRA DESIGNS, Dept. HIPP, 4th & Addison, Berkeley, Ca 94710

BOOKS listed represent a limited selection of available topics, which include Climber's Guides, Trail Guides, Ice and Rock Climbing, Ski Mountaineering, Wilderness Living, Foraging and Plant Indentification, Cookery, Quest Novels and Natural History. For further titles, send for a complete list of books, magazines, and maps. All books are postpaid within the United States.

1. **American Alpine Journal.** Annual publication of the AAC containing articles, book reviews, notes, etc., all peculiar to mountaineering. **$5.00**
2. **Yosemite Valley Climber's Guide.** Roper. Detailed introduction outlines history of rockclimbing in valley, rating system. Body of text presents precise descriptions of standard routes. **$6.95**
3. **High Sierras.** Voge. Sierra Club guidebook to trails and peaks in the High Sierras, with early history, advice on camping, and some topographical description, 8 new sketch maps. **$5.95**
4. **Sierra North.** Schwenke and Winnett. 100 hikes in the back-country trails of the Sierras from Desolation Valley to Mono Creek. Selection based on scenic attraction, wilderness character and recreational potential. **Sierra South** covers Mono Creek to southern end of Sequoia National Park. **$4.95**
5. **Guide to the John Muir Trail.** Starr. Most resourceful guide to the famous trail from Yosemite to Sequoia National Park regions. **$2.00**

6. **On Snow and Rock.** Rebuffat. Precise instructions on the best clothing, footwear, equipment and techniques. Beautifully photographed. **$12.50**

7. **The Complete Walker.** Fletcher. The definitive handbook on hiking and backpacking, comprises sections on equipment, techniques. **$7.95**

8. **Stalking The Healthful Herbs.** Gibbons. Delightful as well as informative herbal, including many native North American culinary and medicinal herbs with drawings. **$2.95**

9. **Human Poisoning From Nature And Other Cultivated Plants.** Hardin and Arena. "Water hemlock is often mistaken for wild parsnip and wild artichokes. Children have become poisoned from using the hollow stem as pea shooters." **$6.00**

10. **Complete Cross-Country Skiing And Ski Touring.** Lederer and Wilson. Highly recommended especially for its section on waxing and wind chill factor. **$3.50**

11. **Annapurna South Face.** Bonington. Brilliantly illustrated with color photographs, a dramatic account of the 1970 first ascent of one of the most forbidding mountain walls of the world. **$10.00**

12. **Americans On Everest.** Ullman. Ullman, world-renowned writer on mountaineering, gives official account of first American ascent of the world's highest peak. A classic mountaineering book. **$10.00**

13. **Food For Knapsackers.** Bunnelle. Principles of food planning, cooking, cleaning up, master food list, recipes, sample menus, and equipment lists. **$3.25**

BUILDING MATERIALS

Fabrics: Wgts. per sq. yd./Prices running yd./All fabrics are 45 in. wide unless otherwise stated.

11 oz. Nylon Cordura Cloth. For packs. COLORS: Orange or Royal Blue **$4.50**
7.5 oz. Nylon Para-Pac. Waterproof Coated. COLORS: Orange, Royal Blue **$3.25**
1.9 oz. Ripstop. Sleeping bags, tents. COLORS. Nutmeg, Blue, Orange . **$1.70**
1.5 oz. Ripstop. Sleeping bags, clothing. COLORS: Tan, Red, Blue . . **$2.00**
2.0 oz. Coated Ripstop. For lightweight tarps, rainflys, ponchos.
COLORS: Orange or Blue **$2.25**
2.75 oz. Coated taffeta. Ponchos, tarps, etc. COLOR: Blue, Green . . **$1.90**

NOTE: Coated goods should be used double layer in areas such as head and shoulders.

60/40 Cloth. Nylon-Cotton blend. Excellent for parkas, down clothing where durability and down-proofness required.
COLORS: Darkish Blue, Orange, Green **$2.75**
2.25 oz. Nylon Taffeta. The most popular fabric for down clothing.
COLORS: Darkish Blue, Cranberry, Green **$1.75**
1.0 oz. Nylon netting. COLOR: Green **$1.00**

DOWN:

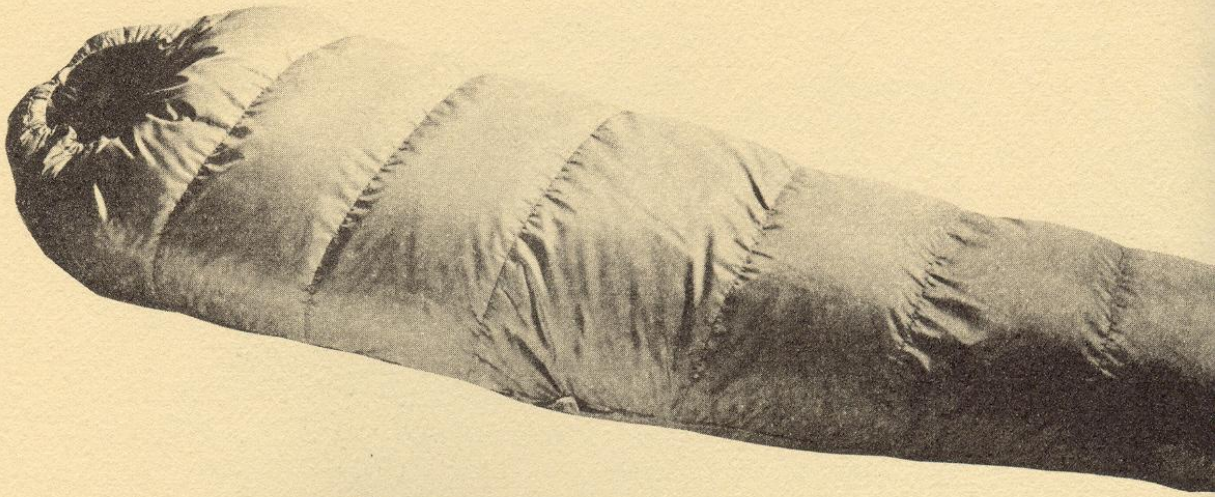
Prime Goosedown	4 oz. Sack	**$ 5.50**	Prime Duckdown	4 oz. Sack	**$ 4.25**
	8 oz. Sack	**$10.50**		8 oz. Sack	**$ 8.25**
	16 oz. Sack	**$20.00**		16 oz. Sack	**$15.50**

ZIPPERS:

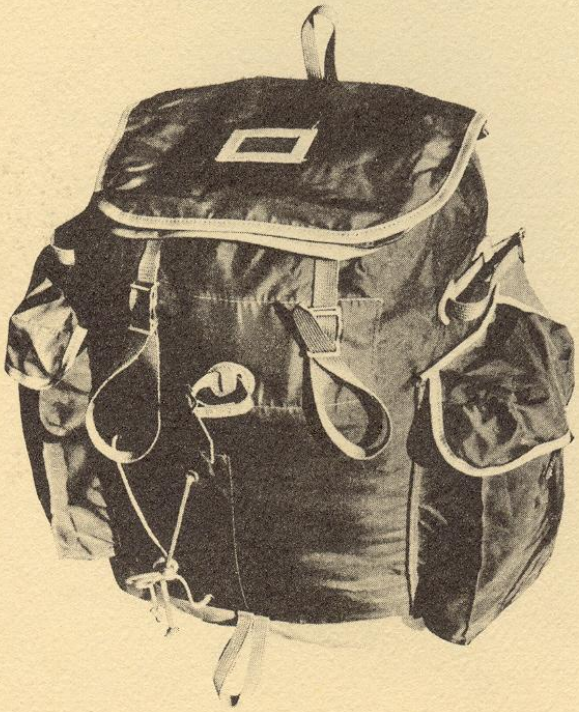
#10 Chain Parka Zips, 23", 25" **$2.50**
5 Chain Parka Zips, 21" to 24" **$1.00**
5 Chain Parka 2-Way
26", 28", 30" **$1.50**
Pocket Zips 6", 9", 12" . . . . **$ .50**

#10 Chain sleeping bag type:
70" **$4.00**
96", 106", 112" . . . **$5.00**
Non-Separating Zips
18", 38", 46" **$1.00**

VELCRO: Velcro has numerous applications as a fastener/closure device.
1" width. COLOR: Tan . . . . . **$2.00 yard**



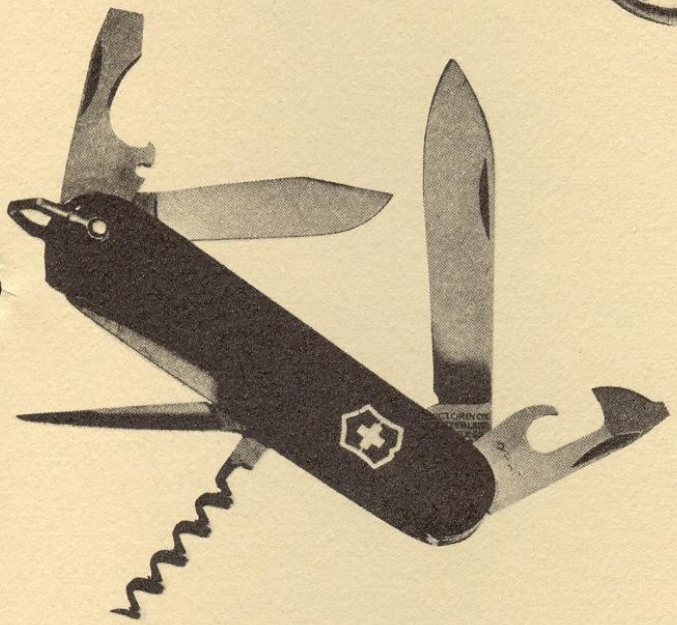
Child's Dacron Mummy Bag: A hard to g
quality item that we do not produce. Insulate
with 2½ lbs. of bonded Polyester Fiberfi
Two layers of overlapping insulation eliminat
cold spots. Inner and outer shell are of ripsto
nylon. Features a 42" zipper; 29" width
shoulders. Will fit child to about 5 ft.
Weight: 4 lbs. **$30.0**



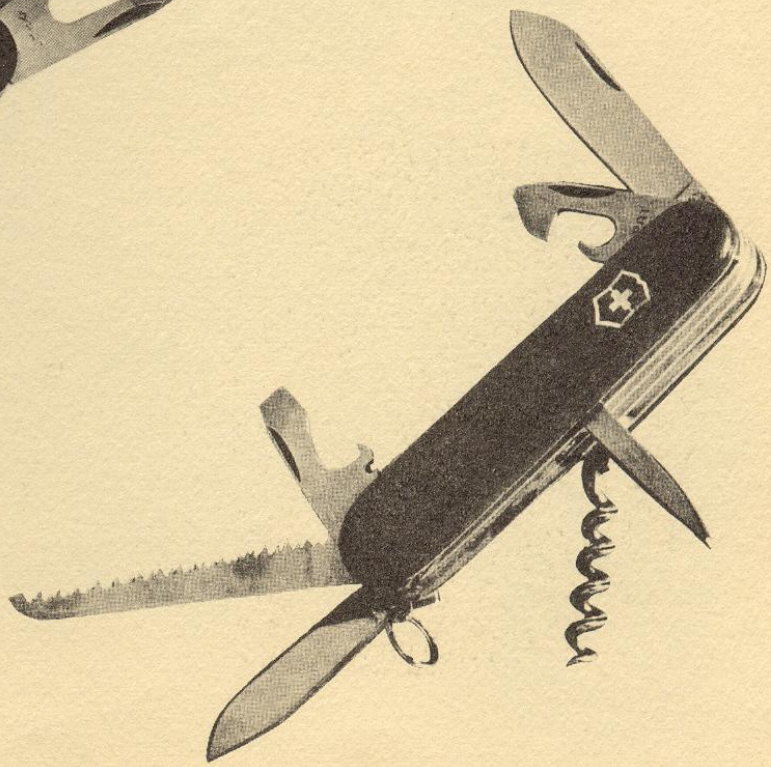
No. 11 Rucksack: Large rucksack, steel
frame, expandable sides of bag acco
dates large load. Features flap pocke
three outside pockets. Felt padded l
shoulder straps. Main sack before expa
20"x20"x7". Will expand an addition
Weight: 4 lbs.

Super Combi: LaFumas' newest mounta
ing rucksack. Nylon sack with cotton a
the back for breathability. Has a zip
pocket in top flap. Ice axe and cra
holders provided on main sack. Ch
under side pockets are for carrying skis
flexible frame. Main sack size 23"x1
Weight: 3 lbs.

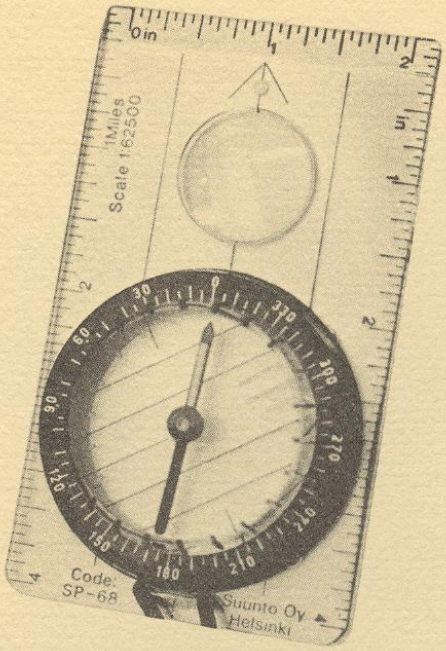
Game Warden: Made by Puma-Werk of Solingen, Germany. A no-nonsense single-bladed clasp knife. Construction is very solid. Handle is one-piece solid brass, with side scales of Jacaranda wood set in. Blade will hold the sharpest edge, and is of finest quality stainless cutting steel. Blade locks open. Folds to length of 5"; blade 4". Weight: 6 oz. **$21.50**

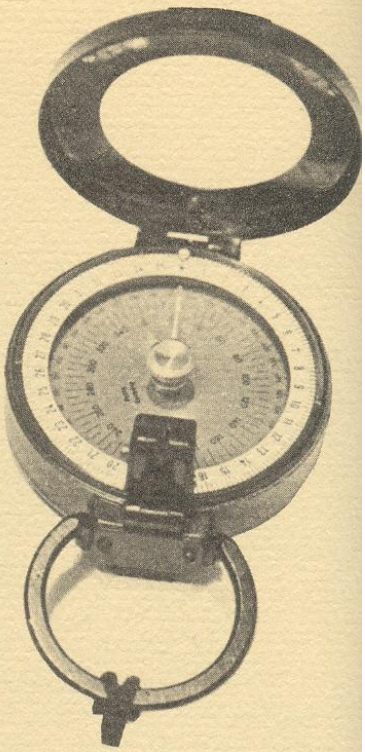


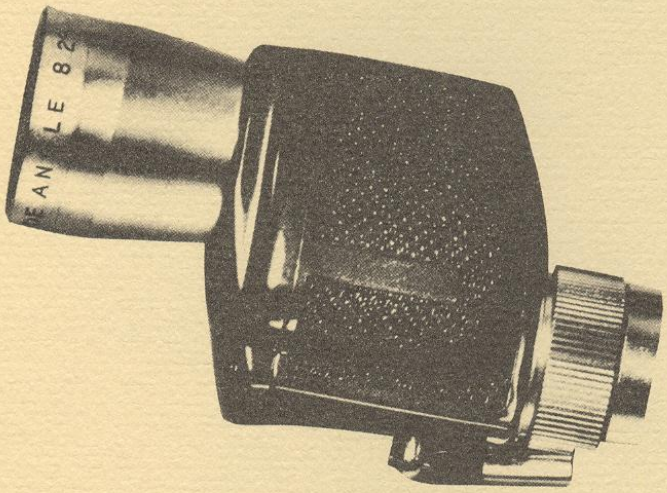
Camper: Made by the original maker of Swiss Army knives. Victorinox. Has everything you really need in a knife. Two blades, corkscrew, punch, can opener, various screwdrivers and prying devices. Has lanyard bale. Weight: 2 oz. **$7.50**



Woodsman: Swiss Victorinox brand. Outstanding Swiss quality. Contains two utility blades, can opener, cap lifter, reamer, corkscrew, scissors, double-cut saw, lanyard shakle. This knife is not only an efficient tool for campers but makes an ideal gift . Weight: 3¾ oz. **$12.50**

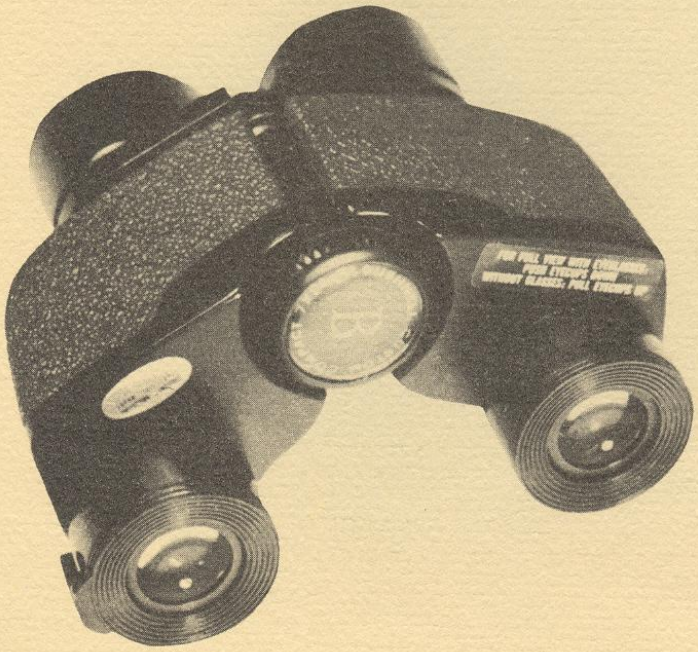






Suunto Compass SP 68: An ideal compas
use with maps. Features a fluid fillled l
to damp needle movement. See-thru base
tains a magnifying glass and mileage
for 15-min. USGS maps. Includes instruc
for use. Weight: 2 oz. $

Prismatic Compass: A quality compass r
in West Germany. A superbly accurat
strument of the direct-reading prismatic
Liquid filled. Has a light, strong case
lanyard and bale. Closed case fits into le
carrier. Instructions provided.
Weight: 4 oz. $



Bushnell Monocular: An 8 power sc
with fully coated lenses. 437' fiel
1,000 yds. Use lens by itself as a c
up magnifying glass to study small
jects. 24mm. objective lens. Comes
carrying case. Weight: 4 oz. $1

Bushnell Binoculars: Custom com
binoculars are about 1/2 the weigh
most binoculars of similar power.
cups retract for people who wear g
es. All air-to-glass surfaces are coc
Center focus—one eyepiece is ac
able. These binoculars are outstanc
6x25 Weight: 11 oz. $6
7x26 Weight: 11 oz. $7

SIERRA DESIGNS DEALERS

Arizona

FLAGSTAFF
Village Sports Den
7 No. Le Roux 86001

PHOENIX
Desert Mountain Sports
4506 N. 16th St. 85016

High Adventure Headqtrs.
3215 E. Camelback Rd. 85018

TUCSON
The Summit Hut
3254 E. Speedway 85716

The Backpacker
604 N. 4th Ave. 85705

California

ARCATA
Arcata Transit Authority
650-A 10th St. 95521

BAKERSFIELD
Bentz Ski/Mtn. Sports
2592 Brundage Lane 93306

BUENA PARK
Back Country
8272 Orangethorpe Ave. 90620

CLAREMONT
The Backpacker Shop
911 E. Foothill Blvd. 91711

FRESNO
Alpine Sport Shop
1401 N. Blackstone 93703

GLENDALE
Kelty Pack, Inc.
1807 Victory Blvd. 91201

GOLETA
Upper Limits
141 N. Fairview 93017

JUNE LAKE
Tex's Mountain Shop
Heidelberg Inn 93529

LA CANADA
Sport Chalet
951 Foothill Blvd. 91011

LOS ANGELES
West Ridge Mountaineering
11930 W. Olympic Blvd. 90064

REDONDO BEACH
Pat's Ski & Sport Shop
115 Palos Verdes Blvd. 90277

RIVERSIDE
Highland Outfitters, Inc.
3579 University Ave. 92502

Riverside Ski & Sport
6744 Brockton 92506

SACRAMENTO
Alpenhaus
2760 Fulton Ave. 95821

Alpenhaus
4506 Florin Rd. 95823

Sierra Outfitters
3214 Fulton Ave. 95821

SAN DIEGO
San Diego Ski Chalet
4004 Sports Arena Blvd. 92110

Stanley Andrews Sports Goods, Inc.
840 "B" St. 92101

SAN JOSE
Freeman's Sport Center
840 Town & Country Village 95128

SAN FRANCISCO
The Smilie Co.
575 Howard St. 94105

Streeter & Quarles West
271 Sutter St. 94108

Swiss Ski Sports
559 Clay St. 94111

SAN LUIS OBISPO
Mountain Sports
858 Higuera St. 93401

California (Continued)

TARZANA
The Mountaineer
5425 Reseda Blvd. 91356

TIBURON
Latour Far West Sport
On the Boardwalk 94920

WALNUT CREEK
Collier's Sports Village
1406 Broadway Plaza 94596

YOSEMITE NATIONAL PARK
The Mountain Shop
Yosemite Village 95389

Colorado

BOULDER
Mountain Sports
821 Pearl St. 80302

The Spoke
617 S. Broadway 80302

COLORADO SPRINGS
Mountain Chalet
226 N. Tejon Ave. 80902

DENVER
Ptarmigan
821 - 17th St. 80202

DURANGO
Colorado Alpine Sports
7th and Main 81301

ENGLEWOOD
Timberline House Ltd.
3394 S. Broadway 80110

FT. COLLINS
Alpine Haus
628 S. College 80521

GUNNISON
Carroll's Ltd.
121 Main St. 81230

Connecticut

HARTFORD
Clapp & Treat
672 W. Farmington 06119

NEW HAVEN
The Ski Hut
15 Whitney Ave. 06510

WILTON
The Ski Hut
Keeler Bldg. 06897

Idaho

BOISE
Bob Greenwood's Ski Haus
2445 Bogus Basin Rd. 83702

IDAHO FALLS
Solitude Sports
170 Elm St. 83401

KETCHUM
Sturtevant's of Sun Valley
Box 408 83340

Illinois

EVANSTON
Campfitters Ltd.,
924 Davis St. 60201

Maryland

BALTIMORE
Appalachian Outfitters
8000 Main
Ellicott City 21043

Massachusetts

AMHERST
Eastern Mountain Sports
Rt. 9 01002

BOSTON
Eastern Mountain Sports
1041 Commonwealth Ave. 02134

CAMBRIDGE
Climbers' Corner
49 River St. 02139

Massachusetts (Continued)

SPRINGFIELD
Climbers & Campers
510 Main 01105

WELLESLEY
Eastern Mountain Sports
189 Linden St. 02181

WOBURN
Alpine Recreation
4-B Henshaw St. 01801

Michigan

ANN ARBOR
Raupp Campfitters
521 So. Ashley

FARMINGTON
Raupp Campfitters
28859 Orchard Lake

LANSING
Raupp Campfitters
2208 East Michigan

Montana

BOZEMAN
The Roundhouse
1508 W. Main 59715

KALISPELL
Sportsman's Ski House
40 E. Idaho 59901

MISSOULA
Montana Sports Co.
1407 S. Higgins 59801

Bob Ward & Sons
Hwy. 93 S. at So. Ave. 59801

Nevada

LAS VEGAS
Highland Outfitting
600 S. Highland Dr. 89106

RENO
Codding-Wetzel
253 E. Plumb Ln. 89502

New Hampshire

INTERVALE
Peter Limmer & Sons 03845

NORTH WOODSTOCK
Skimeister
Main St. 03262

New Mexico

ALBUQUERQUE
Mountain Chalet
1406 Eubank N.E. 87112

SANTA FE
Alpine Sports
1st Northern Plaza 87501

New York

LATHAM
Mountaineering Recreation
960-A Troy-Schnectady Rd. 12110

MT. VERNON
Alpine Recreation
455 Central Park Ave. 10583

NEW PALTZ
Rock & Snow
44 Main St. 12561

NEW YORK
Camp & Trail Outfitters
21 Park Pl. 10007

Leon Greenman, Inc.
132 Spring St. 10012

Oregon

ASHLAND
Mt. Ashland Ski Area 97520

EUGENE
Berg's Nordic Ski
410 E. 11th 97401

Sport Haus
611 E. 13th 97403

Oregon (Continued)

PORTLAND
Alpine Hut
1250 Lloyd Center 97232

Cloud Cap Chalet
625 SW 12th Ave. 97205

Ski Chalet
4800 S.W. 76th 97225

SALEM
Anderson's Sporting Goods
141 Commercial NE 97301

Pennsylvania

PITTSBURGH
The Mtn. Trail Shop
2506 W. Liberty Ave. 15222

The Mtn. Trail Shop
4748 Old Wm. Penn Hwy.
Murraysville 15668

Texas

DALLAS
Mountain Chalet
#502 Old Town Shopping Center
5500 Greenville Ave. 75206

HOUSTON
Wilderness Equipment
643 Westbury Square 77035

Utah

SALT LAKE CITY
Timberline Sports, Inc.
2959 Highland Dr. 84106

Virginia

BLACKSBURG
Appalachian Outfitters
215 N. Main 24060

Washington, D.C.

Appalachian Outfitters
2930 Chainbridge Rd.
Oakton, Va. 22124

Washington

BELLEVUE
Fiorini's Ski Haus
201 - 104th NE 98004

BELLINGHAM
Edelweiss Haus
215 E. Holly 98225

SEATTLE
Alpine Hut, Inc.
2650 University Village 98105

SPOKANE
Selkirk Bergsport
W. 30 International Way 99220

MT. VERNON
Cardinal Bookstore
2450 College Way 98273

WENATCHEE
Arlberg Ski Shop
1300 N. Wenatchee Ave. 98801

Wisconsin

MADISON
H. H. Petrie Sporting Goods
702 N. Midvale Blvd. 53711

H. H. Petrie Sporting Goods
644 State St. 53703

Wyoming

JACKSON
Teton Mountaineering
Box 1533 83001

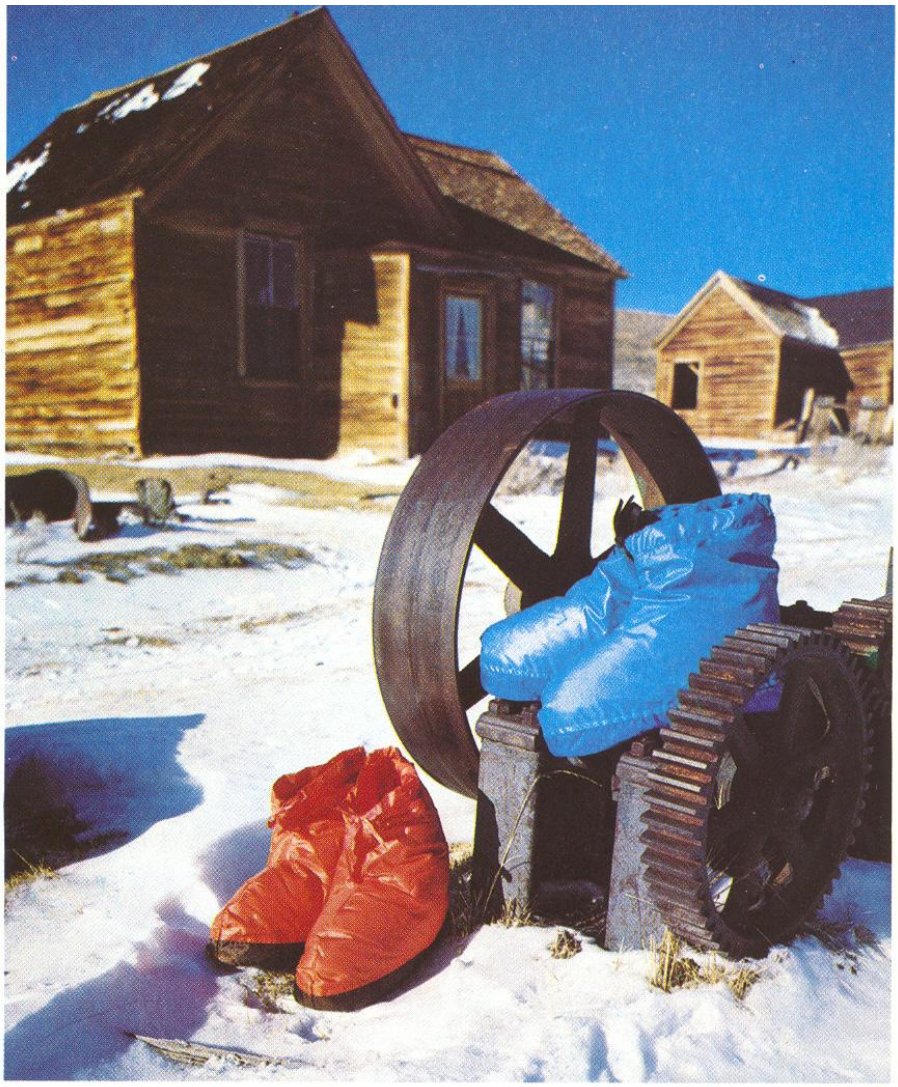
LARAMIE
Alpine Haus
1700 Grand Ave. 82070

ERRATA

After our catalog had gone to press, we discovered errors in the listed weights of a number of our sleeping bags. Please refer to this sheet for correct weights.

Model		Size	Total Weight
#200	Two-Hundred	Regular	4 lbs. 2 oz.
#200	Two-Hundred	Large	3 lbs. 4 oz.
#200	Two-Hundred	X-Large	3 lbs. 10 oz.
#300	Expedition	Regular	4 lbs. 13 oz.
#300	Expedition	Large	5 lbs. 6 oz.
#300	Expedition	X-Large	6 lbs. 1 oz.
Omni		Regular	4 lbs. 6 oz.
Omni		Large	4 lbs. 15 oz.
Omni-Light		Regular	3 lbs. 6 oz.
Omni-Light		Large	4 lbs.

NOTE: COPY SPECIFICATIONS ON OMNI & OMNI-LIGHT ARE REVERSED.



Down Booties

For cold-feet people. Most useful in tents, sleeping bags, or very limited trips around camp. Down filled; sole insulated with ensolite foam. Bottoms and lower sides of coated nylon.

COLORS: Usually startling. $8.75

SIZES: Sm. (5-7) Med. (8-9) Lge. (10-11) X-lg. (12-14)

Gaiters

For snow or scree. Two layers of fabric with outer of 60/40 cloth. Zipper front with snap closure over zipper. Hook for attaching to boot laces. Elasticized.

COLORS: Darkish Blue, Orange, Green.

High Gaiter (16″) 8 oz. $10.00

Low Gaiter (7″) 6 oz. $ 6.50

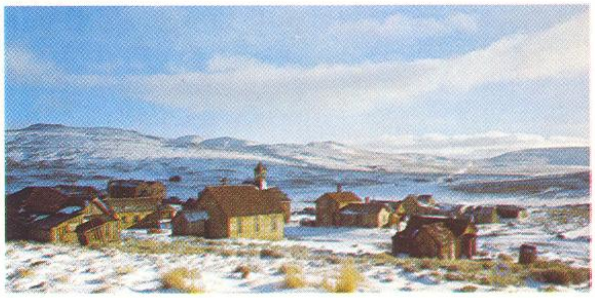
BODIE

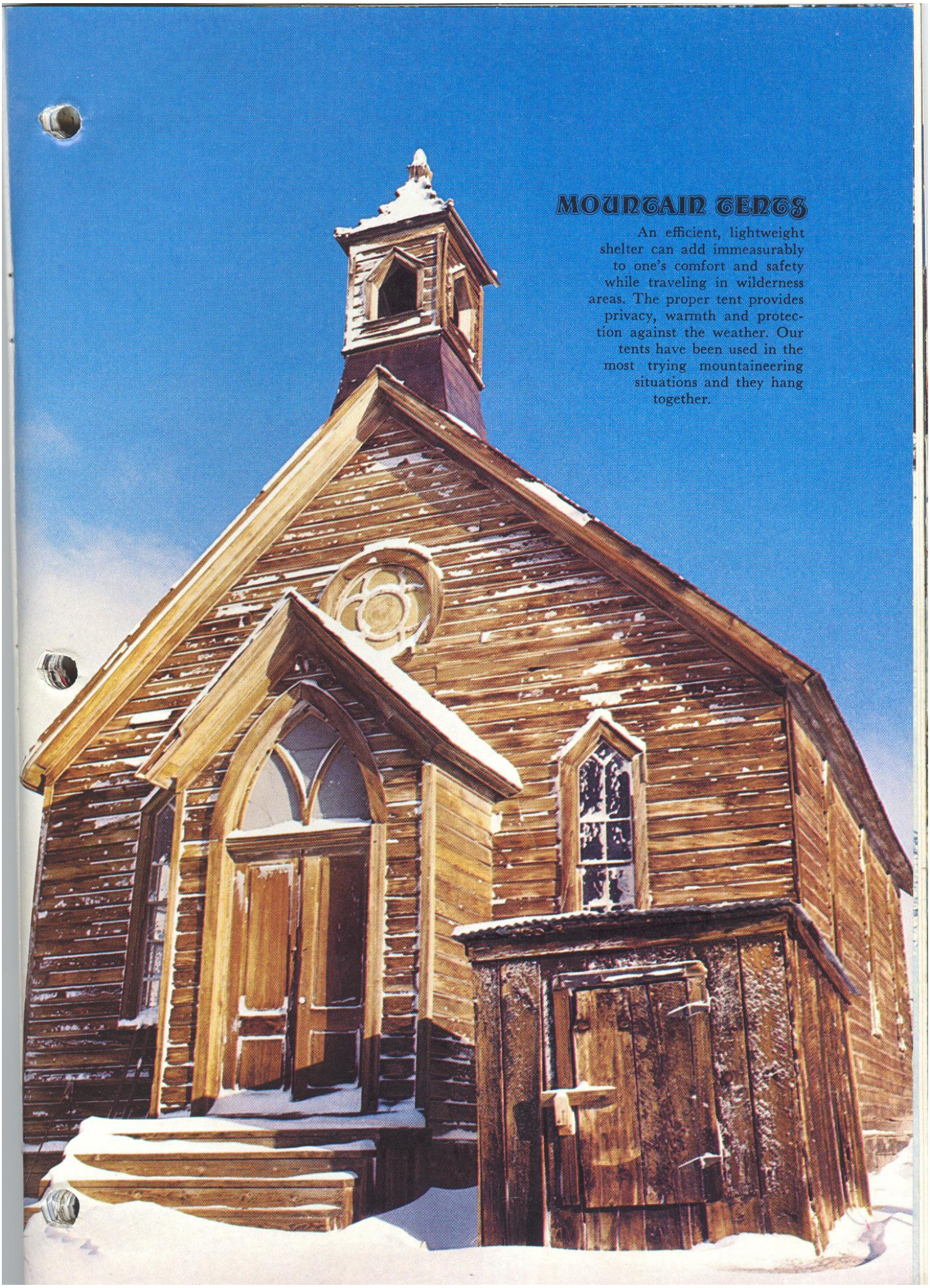
Most of this year's catalog was photographed in the "ghost" town of Bodie, California. Bodie is a spare, beautiful wreck of a town sitting 8,000 feet high in the California desert east of San Francisco near the Nevada border.

Bodie's history was brief and tumultuous; the town was famous for its murders, saloons, disastrous fires, whorehouses, mine disasters, and bitter winter weather. A little girl, whose family was moving from Aurora to Bodie is said to have concluded her nightly prayers with "Goodbye, God, I'm going to Bodie", a quotation which may well have been the sentiment of many of the men who went there to work the mines.

Bodie is an unusual setting for our catalog, but we happen to like the look and spirit of the place. Standing in the snowblown, empty-housed streets, one is curiously touched by the earthy vitality that remains amid the debris of Bodie's past life.

We wish to thank the California Dept. of Parks and Recreation for permission to photograph in Bodie. In particular we thank Ranger Larry Cernak for showing and telling us about Bodie, for extending the hospitality of his house and magnificent wood stove.





MOUNTAIN TENTS

An efficient, lightweight shelter can add immeasurably to one's comfort and safety while traveling in wilderness areas. The proper tent provides privacy, warmth and protection against the weather. Our tents have been used in the most trying mountaineering situations and they hang together.

GLACIER TENT

We don't mind saying this is one of the best two-man mountaineering tents around. Apparently many Glacier tent owners don't mind saying so either, for we get more complimentary letters about this tent than any other item of equipment we make. Tent has two entrances: a tunnel door at alcove end, and a two-zipper, triangular door at the front. Both entrances are fully screened for insect protection in warm weather. There is a 38″ zippered cookhole at alcove end with a tunnel vent above, so there is ventilation when doors are closed. There is a net pocket attached to walls at each end of tent for small items. Main walls are sewn on 1.9 oz. ripstop nylon. Lower walls are 12″ high and made of Polymer coated nylon for waterproofness and strength. Floor is of same coated fabric and is one piece from front wall to alcove line. Tent comes complete with pegs, flysheet, poles and all guys.

COLORS: Orange or Blue.

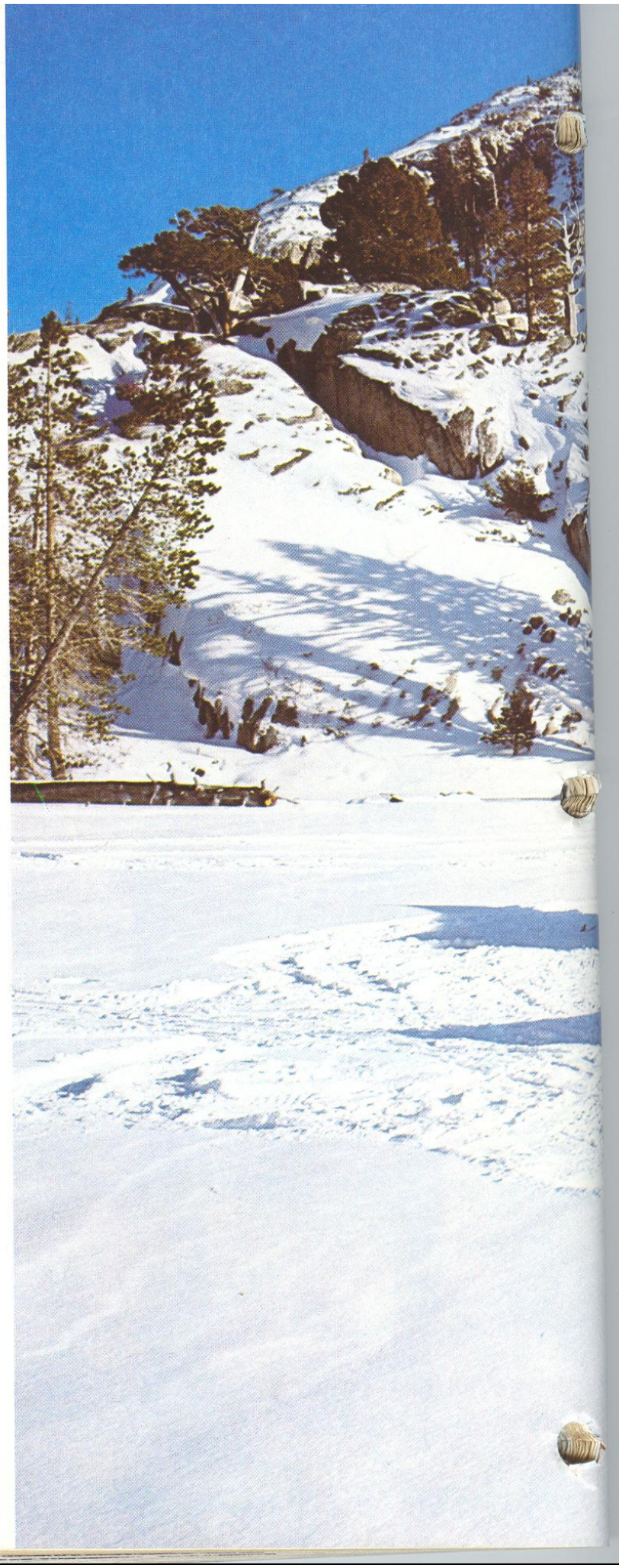
(See page 26 for more details) $142.00

SPECIFICATIONS:
Pole Weight: 2 lbs.
Fly Weight: 1¼ lbs.
Tent Weight: 3 lbs., 9 oz.
Total Weight: 6 lbs., 13 oz. (Complete w/Pegs, etc.)
Floor Size: 4½'x7½'
+4½ sq. ft. alcove.
Height: 45″.
Packed Size: 8″x18″.

FROST LINER

Glacier frost liner comes with attachments.

COLOR: White. Wgt.: 1 lb. 9 oz. $22.00



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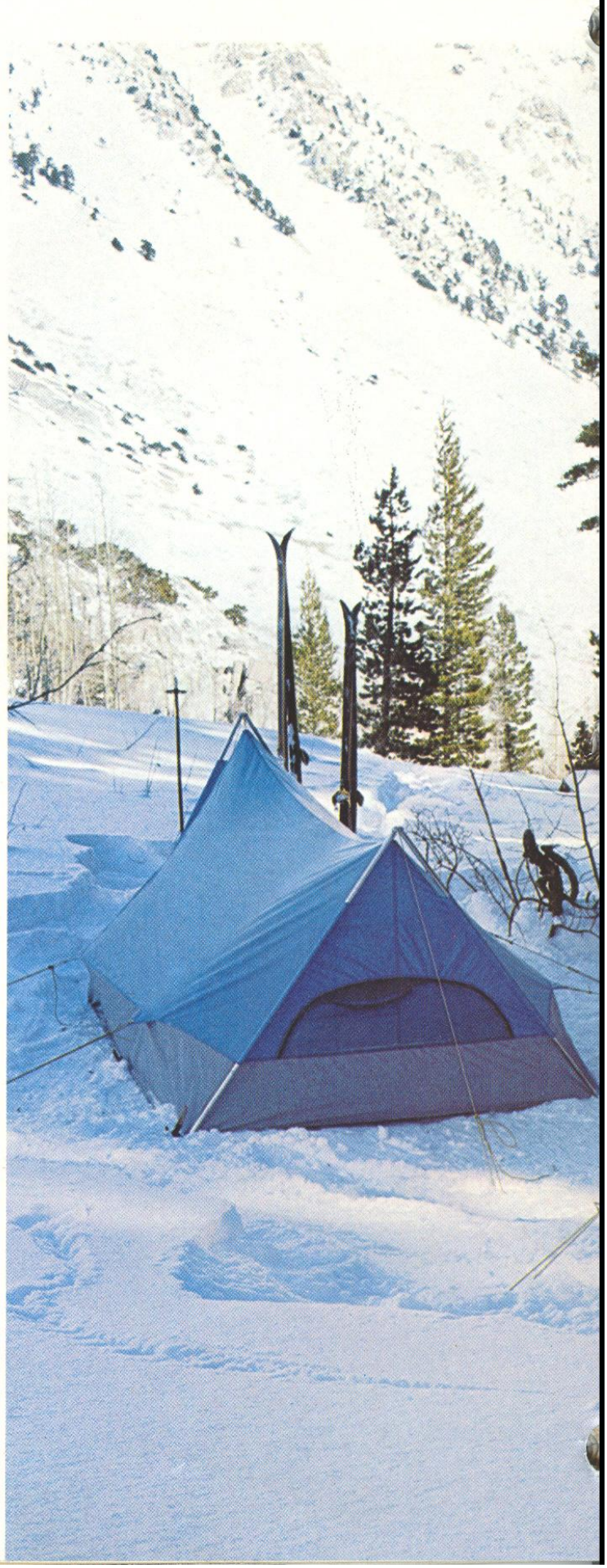
WILDERNESS TENT

A rugged, lightweight two-man backpacking / mountaineering tent. Designed with economy and simplicity in mind, but with no hedging in respect to materials and quality construction. The tent is made to stand up to all weather. Single entrance is a tunnel door—a type of entry preferred by many mountaineers. Behind entrance is a zippered screendoor. A tunnel vent is above main door and a 38″ zippered, screened window is set in rear wall. Main walls are 1.9 oz. nylon ripstop. 12″ high lower walls and one-piece floor are Polymer coated nylon for waterproofness and strength. Tent comes complete with pegs, guys, flysheet and poles. (See page 26 for more details.)

COLORS: Orange or Blue. $112.50

SPECIFICATIONS:
Pole Weight: 1 lb., 14 oz.
Fly Weight: 1 lb.
Tent Weight: 2 lbs., 14 oz.
Total Weight: 5 lbs., 13 oz. (complete w/Pegs, etc.)
Floor Size: 7¼′x4½′.
Height: Rear 36″, Front 45″.
Packed Size: 8″x18″.



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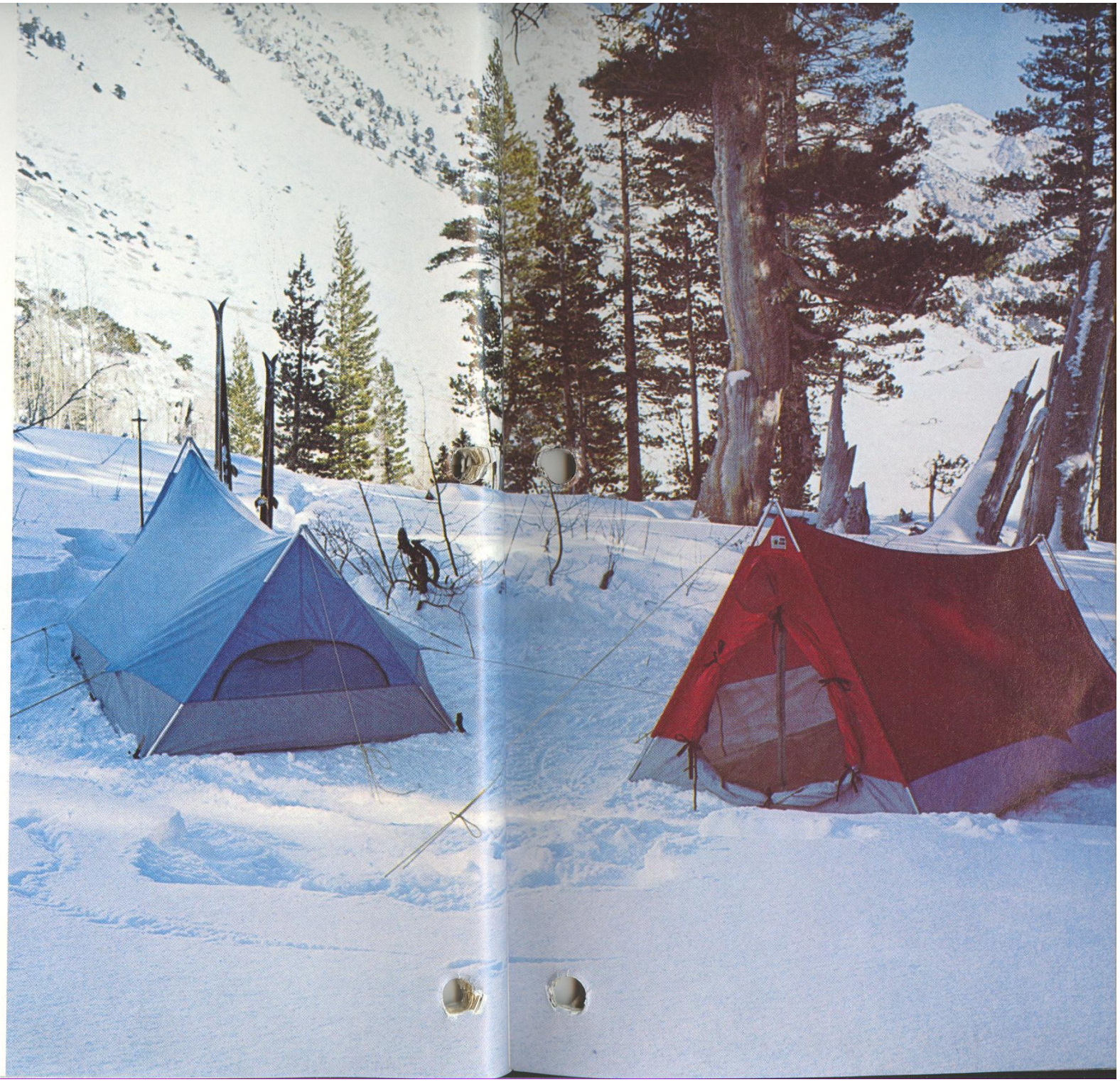

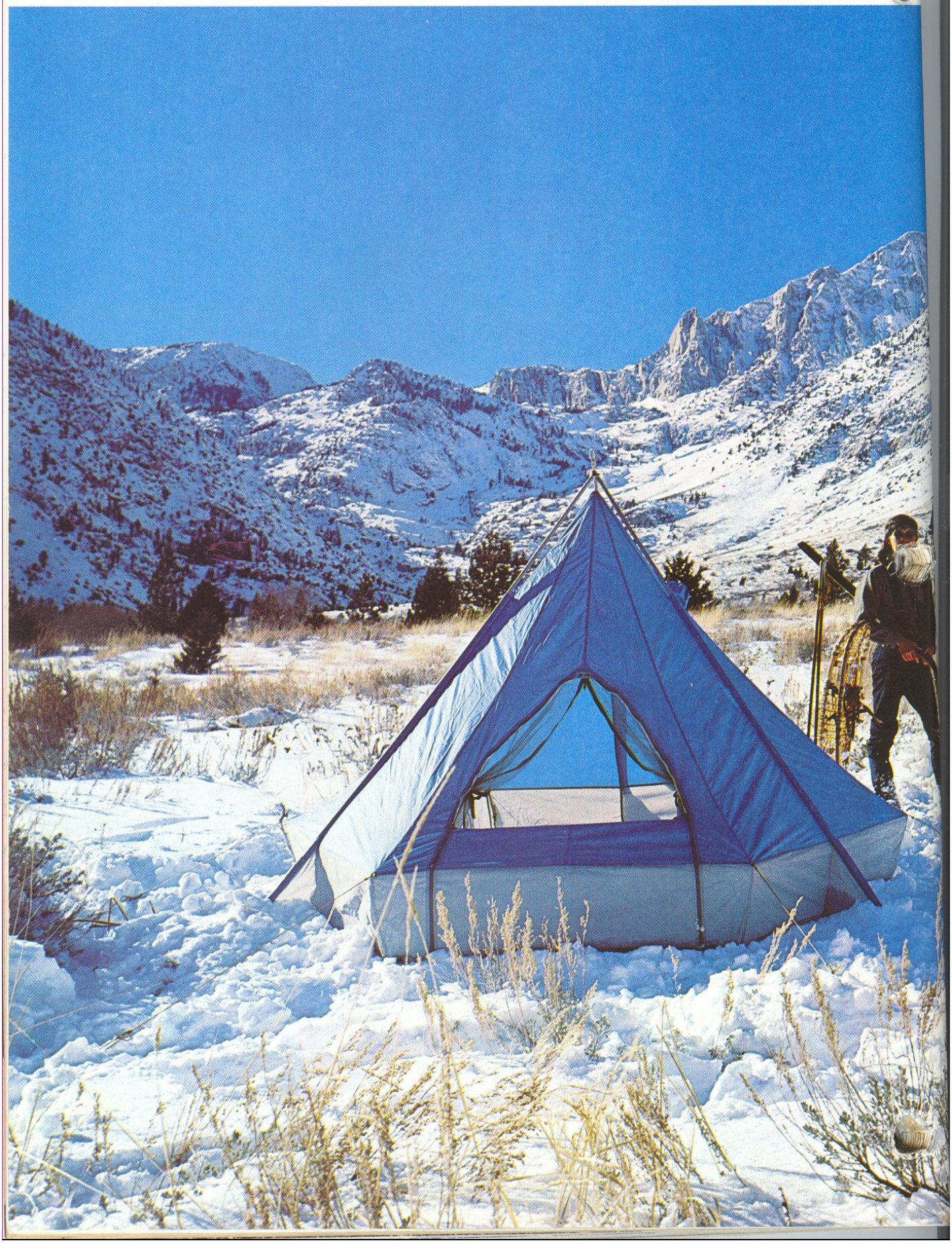

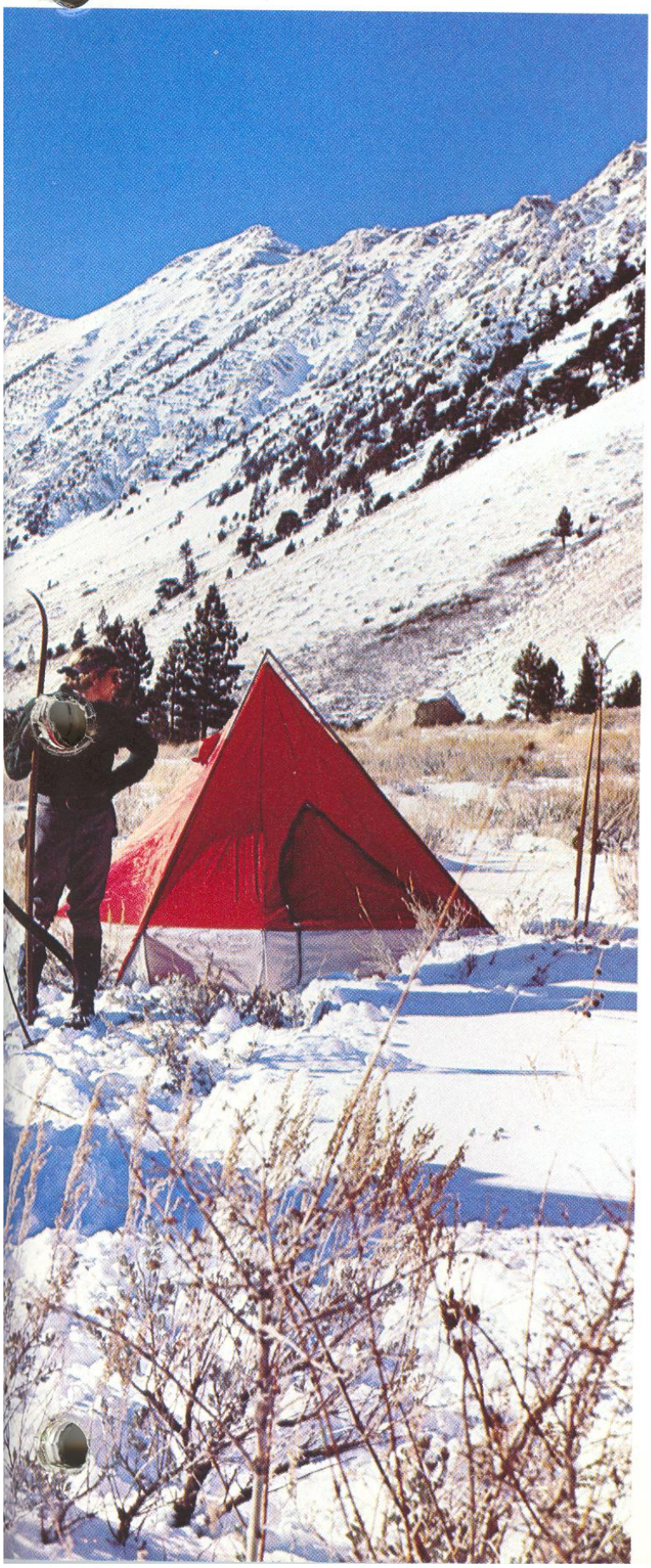

3-MAN TENT

A lightweight tent with particular appeal for backpacking families. We call this a three-man tent because it is certainly smaller than the normal four-man mountain tent, but we have used it so often for parties of four that we can safely tell you it will accommodate four persons with reasonable comfort. A six-sided tent with three supporting poles. Large, zipper door has screen door set behind for insect protection. Two tunnel vents are set near peak, and there is a 38" zippered cookhole in center of tent floor. Main walls are 1.9 oz. ripstop nylon and lower walls (14" high) and floor are waterproof, Polymer coated nylon. Tent comes complete with pegs, guys, flysheet and poles. (See page 26 for more details).

COLORS: Orange or Blue. $155.00

SPECIFICATIONS:
Pole Weight: 2 lbs., 6 oz.
Fly Weight: 1 lb., 6 oz.
Tent Weight: 3 lbs., 12 oz.
Total Weight: 7 lbs., 8 oz. (Complete w/Pegs, etc.)
Floor Size: 7′ across the length of any rectangle. (Hexagonal floor plan).
Height Peak: 5′ 7″.
Packed Size: 8″x24″.

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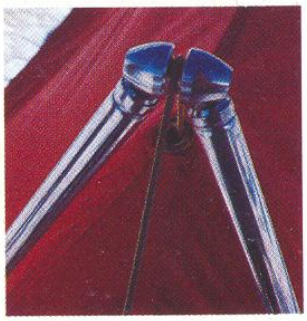
Floor Size: 7′ across the length of any rectangle. (Hexagonal floor plan).
Height Peak: 5′ 7″.
Packed Size: 8″x24″.

TENT COMPONENTS

Described below are the various parts that make up our tents.

POLES

All of our poles are aluminum alloy of aircraft quality. Our poles are expensive and first rate quality. They are shock-corded, for quick erection and there are no parts to get separated



or lost. Should poles need repair or cord need replacement, it can be done without need to scrap a pole. Cord is held in place with threaded fittings. Top joints are beautiful, functional, very strong. These poles are made exclusively for us by a mountaineer who is an engineering genius.

FLYSHEETS

All of our tent rainflys are made of a 1.2 oz. ripstop nylon with a Polymer coating for waterproofness and strength. Our flys are costly, light and strong. They are not of postage-stamp cut, but fully overlap the waterproof lower walls of the tents for maximum rain protection.

SEWING

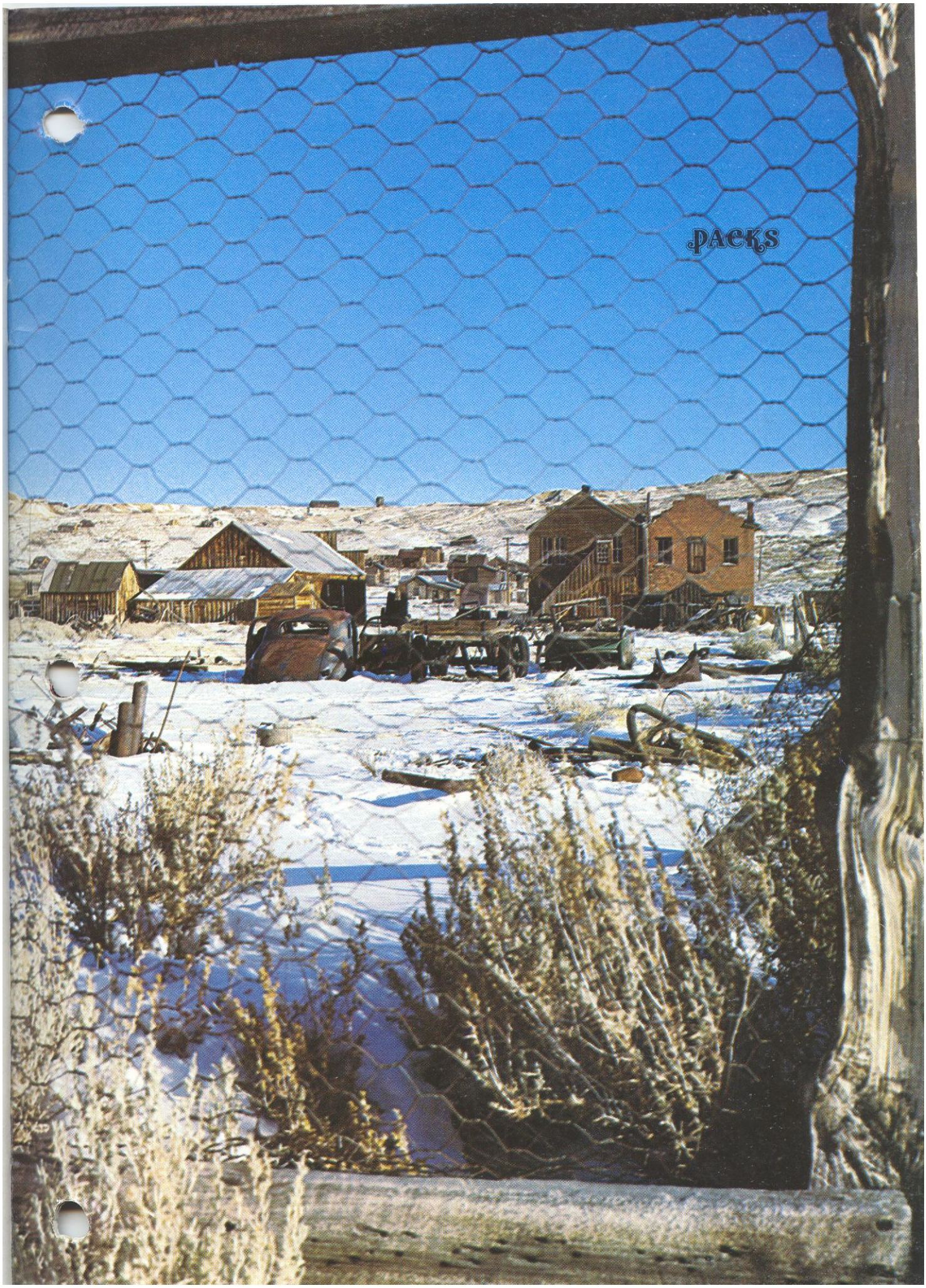
All of our tent walls have double-needle, lap-fold seams.

There is no stronger way to sew them. Cheap tents may have 4-5 stitches per inch; our tents all have 8 stitches per inch.

We cut all our tent walls with "catenary cuts"—a long, shallow curve along the edge of the fabric—this is what takes the sag out. Our tents get a little better each year, for we are always adding a detail here, improving a thing somewhere else. Making good tents is one of our biggest challenges, and the design of new and better tents is one of our more interesting projects.

MATERIALS

We use 1.9 oz. nylon ripstop for all our tent walls. It proves to be the best presently available fabric for the purpose. Light and with a reserve of strength and abrasion resistance that ensures endurance. We use a 2 oz. nylon for lower walls and floors. It is coated with a Polymer film. The Polymer coating is waterproof and is about 25-30% stronger than fabric coated with polyurethane. All the zippers used in our tents are Y.K.K. Delrin Nylon. We use #10 and #5 chain sizes. They have proven to be excellent in their operation and strength.


PACKS

SUMMIT

For the mountaineer and ski-tourer. A medium size pack that can be used for overnight trips by one who knows how to travel light. There are three zippered pockets; two side pockets are 2½" deep x 5½" x 12", and there are slots behind them to carry lightweight cross-country skis. Third pocket is on lid and measures 8" x 11" x 3½". There are leather strap patches on bottom and body of pack. Pack comes with ice-axe carrier, accessory straps, waistbelt. Shoulder straps are felt-padded. Bottom is top-grain leather, and pack fabric is 11 oz. Cordura nylon — the toughest, finest climbing pack material we have ever used. It is waterproof coated.

COLORS: Royal or Orange. Overall size 20"x14"x7".

Weight: 41 oz. $28.50

SIMPLEX

Most of these packs are bought as book bags by students who ride bicycles, but it makes a fine, inexpensive hiking pack. Fabric is 7.5 oz. coated nylon para-pac. Shoulder straps are 2" wide, unpadded nylon web. Two zipper pockets: one at rear and the other is lid pocket.

COLORS: Green, Blue or Orange. (Give alternative color if possible).

Overall size: 14"x10"x6". Wgt. 11 oz. $9.75

DAYTRIPPER

The classic small pack for day use. Wedge shape allows freedom of movement and lies snug to the back. Pack is divided into upper and lower compartments. We have re-designed the lower section for easy access, as it opens completely. Zipper in lower section has two sliders so compartment can be opened from any point. The same fine materials and accessories as included with Summit pack.

COLORS: Royal or Orange.

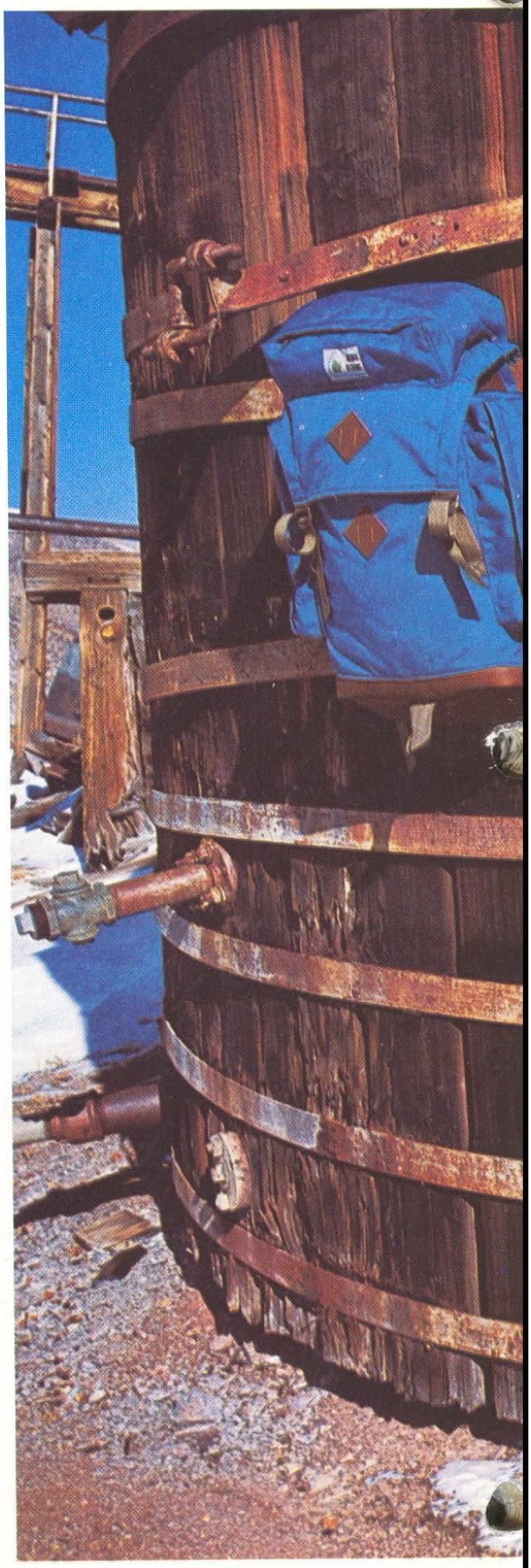
Overall size: 19"x14"x16". Wgt. 23 oz. $19.50

MINI-TRIPPER

A reduced version of our Daytripper. Materials, design and accessories the same as for Daytripper, the only exception being that Mini-tripper has bottom of Cordura nylon rather than leather.

COLORS: Royal or Orange.

Overall size: 16"x12"x6". Wgt. 15 oz. $14.50



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SIERRA DESIGNS PACKFRAMES

Our frame units carry heavy loads in comfort and withstand hard use. Frame is airc quality aluminum alloy, with all joints heli-arc welded, and contoured to the back. Fram strong with a full-length nylon mesh panel; superior to backbands for comfort and w distribution. Shoulder harness and waistbelt are both padded with ensolite.

Our packbags are made of 7.5 oz. coated nylon para-pac. The bag covers ⅔ of the fra length, leaving space underneath for sleeping bag, foam pads, etc. Carry straps are included are attached to frame. We feel this is the most practical arrangement for a framepack offer no other. Bag is one large compartment with six outside pockets as shown.

COLORS: Royal or Orange.

SIZES: Small (5′ 6″ and under) Medium (5′ 6″ to 5′ 9″) Large (5′ 10″ up).

Average weight of unit: 4 lbs. $56

Graphic Designer: Alfred Marty Photographer: Gordon Hirano Asst. Photographer: Don Williamson Producer: Jeani Nagy

ALPENLITE FRAMES AND BAGS

The Alpenlite frame is a unique design that is exceptionally comfortable to carry. Frame is made from large diameter, polished aluminum alloy and heli-arc welded. The Alpenlite frame carries so comfortably because it is shaped to encircle the hips. A large, padded waistbelt then easily transfers weight from frame to hips. Has padded shoulder straps and nylon mesh backbands. Packbag on Alpenlite frame is made by Sierra Designs to Alpenlite specifications. It has six pockets, and the interior of bag is divided. Lower and upper compartment arrangement allows for load division, and weight distribution. Bag fabric is 7.5 oz. coated nylon para-pac.

COLORS: Royal or Orange.

SIZES: Small: smaller than 5′ 5″ Medium: 5′ 5″ to 6″ Large: 6′ or taller.

Average weight of unit: 3 lb. 12 oz. $62.50

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Sierra Designs
4th & Addison Sts.
Berkeley, Ca 94710

Bulk Rate
U.S. Postage
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